STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

HEARINGS

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

FIRST SESSION

ON

S. 1544

A BILL ENTITLED "THE STATE AND LOCAL ENERGY BLOCK
GRANT ACT OF 1981"

SEPTEMBER 29 AND OCTOBER 16, 1981

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CONTENTS

Hearings: Page
September 29, 1981 ... 1
October 16, 1981 ... 301
S. 1544 ... 3

TUESDAY, SEPTEMBER 29, 1981

STATEMENTS

Bleviss, Deborah Lynn, associate director, Federation of American Scientists ... 254, 255
Clayman, Jacob, president, National Council of Senior Citizens ... 232, 235
Croke, Mark I., legislative representative for energy and environment, National Association of Counties ... 206, 208
Davis, W. Kenneth, Deputy Secretary, Department of Energy, accompanied by Frank D. DeGeorge, Principal Deputy Assistant Secretary for Conservation and Renewable Energy ... 46
Domenici, Hon. Pete V., a U.S. Senator from the State of New Mexico ... 37
Gillison, Rev. Robert, Reva, Va ... 231
Hansen, Dr. Shirley, energy adviser to the American Association of School Administrators ... 263, 266
Hatfield, Hon. Mark O., a U.S. Senator from the State of Oregon ... 45
Heinz, Hon. John, a U.S. Senator from the State of Pennsylvania ... 38
Helme, Edward A., staff director, National Governors' Association energy and environment program, on behalf of Hon. Joseph Brennan, Governor of the State of Maine ... 194, 197
Hill, Charles E., managing attorney, Washington Office, National Consumer Law Center ... 274, 276
Lash, Jonathan, president, Energy Conservation Coalition ... 246, 248
McClure, Hon. James A., a U.S. Senator from the State of Idaho ... 1
Sperry, Sam R., director, Seattle Energy Office, Seattle, Wash., on behalf of the National League of Cities ... 214, 217
Tauke, Hon. Thomas J., a U.S. Representative from the State of Iowa ... 10, 12

FRIDAY, OCTOBER 16, 1981

STATEMENTS

Cooper, Dr. Mark, director of research, Consumer Energy Council of America ... 430, 433
Duffus, Hon. James, III, Senior Group Director, Energy and Minerals Division, General Accounting Office, accompanied by David Cahalen, Group Director, Energy and Minerals Division; and Larry H. Endy, Group Director, General Government Division ... 302
Ford, Hon. Wendell H., a U.S. Senator from the State of Kentucky ... 301
Gibbons, Hon. John H., Director, Office of Technology Assessment, accompanied by Richard Rowberg, Program Manager for Energy; Nancy Naismith and Mary Procter, Project Directors ... 335, 342
Lyle, Edward, counsel, the Alliance To Save Energy ... 413, 416
Maggiore, Anthony J., Jr., associate director, Community Relations-Social Development Commission in Milwaukee County, on behalf of the National Community Action Agency Executive Directors Association and the National Community Action Foundation ... 687, 691

Page

Myers, Donald L., treasurer, American University, on behalf of the American Council on Education 679, 682

Praul, Cynthia, senior energy policy analyst, California Energy Commission, Sacramento, Calif 576, 579

APPENDIX

Additional statements submitted for the record 711

STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

TUESDAY, SEPTEMBER 29, 1981

U. S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 9:40 a.m., in room 3110, Dirksen Office Building, Hon. James A. McClure, chairman, presiding.

Present: Senators McClure, Hatfield, Weicker, Domenici, Warner, Ford, and Bradley.

Also present: Charles A. Tranbandt, chief counsel; Richard D. Grundy, professional staff member; and James T. Bruce, counsel for the minority.

OPENING STATEMENT OF HON. JAMES A. McCLURE, A U.S. SENATOR FROM THE STATE OF IDAHO

The CHAIRMAN. The committee will come to order. Good morning, ladies and gentlemen. Today's hearing is on S. 1544, the State and Local Energy Block Grant Act of 1981.

This measure was introduced in order to focus the committee's consideration in this Congress on the most appropriate and fiscally acceptable approach to any continuation of existing Federal categorical energy grant programs.

The bill was drafted by the Department of Energy at my request in order to provide a conceptual representation of the administration's often repeated support for State energy block grants as an alternative to existing categorical grant programs.

Examples of grant programs administered by the Department of Energy include State energy conservation planning, State energy emergency activities, weatherization assistance for low-income people, Energy Extension Service activities, and energy conservation in schools and hospitals, to name a few programs.

These categorical grant programs were well intentioned at the time of their enactment. Indeed almost all of these programs were legislated by this committee. However, the time for such a large number of categorical energy programs may well be past. Continuation of all these separate categorical grants is certainly worthy of a review given current budget realities.

Also given our new and commendable Federal interest in reliance on State and local government, the existing narrowly defined terms and conditions of these programs should be reviewed as well.

I am reminded of the cogent words of President Reagan last week when he stated:

> Let me return to the principal purpose of this message—the budget and the imperative need for all of us to ask less of Government, to help us return to spending no more than we take in, to end the deficits and bring down interest rates that otherwise can destroy what we have been building here for two centuries.
>
> I know that we are asking for economies in many areas and programs that were started with the best of intentions and a dedication to a worthwhile cause or purpose, but I know also that some of those programs have not succeeded in their purpose. Others have proven too closely benefiting those who administer them rather than those who were the intended beneficiaries.

Now is the time for a thoughtful and thorough review of the proliferation of Federal categorical energy grant programs. This hearing along with similar hearings by several of our subcommittees over the last few months provide that review.

On the basis of the testimony received to date, I am convinced that this may be the time to consolidate as many of these narrow categorical energy grants as possible into a single Federal energy block grant. This will facilitate a reduction of State and local government overhead as well as the Federal Government overhead.

From this perspective I look forward to today's witnesses who will address S. 1544 as the legislative vehicle for such consolidation.

[The text of S. 1544 follows:]

II

97TH CONGRESS
1ST SESSION

S. 1544

Entitled "The State and Local Energy Block Grant Act of 1981".

IN THE SENATE OF THE UNITED STATES

JULY 30 (legislative day, JULY 8), 1981

Mr. MCCLURE (for himself and Mr. DOMENICI) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

Entitled "The State and Local Energy Block Grant Act of 1981".

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "State and Local Energy Block Grant Act of 1981".

SEC. 2. DEFINITIONS.

For the purposes of this Act, the term "State" means the fifty States, the District of Columbia, and Puerto Rico.

SEC. 3. ALLOCATION OF FUNDS.

(a) For the purposes of providing the financial assistance authorized by this Act, the Secretary of Energy shall allocate annually the sums available for financial assistance under this Act among the States in the following manner—

(1) 75 per centum shall be allocated on the basis of the resident population of the States; and

(2) 25 per centum shall be allocated equally among the States.

(b) Notwithstanding subsection (a) of this section, the Secretary of Energy may set a maximum allocation for the Virgin Islands, Guam, American Samoa, the Government of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

SEC. 4. PAYMENTS TO STATES.

(a) Upon annual application, the Secretary of Energy shall make payments as provided by section 203 of the Intergovernmental Cooperation Act of 1968 (42 U.S.C. 4213) to each State, not to exceed its allocation under section 3 of this Act, for use by the State as provided in section 5 of this Act.

(b) Any State receiving financial assistance under this Act shall provide matching funds from non-Federal sources in an amount equal to—

(1) 30 per centum of the amount awarded, for fiscal year 1982;

(2) 50 per centum of the amount awarded, for fiscal year 1983; and

(3) 50 per centum of the amount awarded, for fiscal year 1984.

SEC. 5. USE OF GRANT MONEY.

(a) A State may use amounts paid to it under section 4 for energy conservation and supply activities, including but not limited to—

(1) energy conservation,

(2) energy conservation measures and weatherization in public or nonprofit institutional buildings, including schools, hospitals, public care institutions, and local governmental buildings,

(3) weatherization for low-income persons,

(4) residential and commercial building conservation,

(5) residential and commercial energy audits and technical assistance,

(6) energy emergency preparedness,

(7) renewable energy research, development, and demonstration,

(8) energy supply, research and development,

(9) transportation energy efficiency, and

(10) energy conservation and supply development in the agricultural sector.

(b) Amounts described in subsection (a) may not be used for costs of administration in excess of 10 per centum of the amount awarded under section 4.

(c) A State shall obligate amounts described in subsection (a) by the end of the fiscal year following the fiscal year for which those amounts were appropriated.

SEC. 6. REPORTS AND AUDITS.

(a) The Secretary of Energy, by general or special orders, shall require any grantee, subgrantee or other recipient of financial assistance under this Act to provide, in the form the Secretary of Energy prescribes, whatever reports or answers in writing to specific questions, surveys, or questionnaires as may be necessary to enable the Secretary of Energy to ensure that funds made available by this Act are properly spent.

(b) Each person responsible for the administration of any project receiving financial assistance under this Act shall keep whatever records the Secretary of Energy prescribes in order to assure an effective financial audit and performance evaluation of that project.

(c) The Secretary of Energy, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, information, and records of any project receiving financial assistance under this Act that are pertinent to the financial assistance received under this Act.

(d) Payments under this Act may be made in installments and in advance, or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments.

SEC. 7. APPROPRIATIONS AUTHORIZATION.

There is authorized to be appropriated for purposes of section 4 of this Act $200,000,000 for each of the fiscal years 1982, 1983, and 1984.

SEC. 8. TECHNICAL AND CONFORMING AMENDMENTS.

(a) The Energy Security Act is amended—

(1) in title V, by striking out subtitle F (42 U.S.C. 8285–85c.), relating to energy auditor training; and

(2) by striking out the items in the table of contents relating to subtitle F of title V.

(b) The National Energy Conservation Policy Act is amended—

(1) in title II, by striking out parts 1 (42 U.S.C 8211–26) and 5 (42 U.S.C. 8235–35i) and section 233 (92 Stat. 3227), relating to residential energy conservation and weatherization assistance for low-income persons;

(2) by striking sections 303 and 304 (92 Stat. 3248) and section 312 (42 U.S.C. 6371j.), relating to energy conservation programs for schools and hospitals and buildings owned by units of local governments and public care institutions;

(3) by striking out title VII (42 U.S.C. 8281–84), relating to the commercial and apartment conservation service; and

(4) in the table of contents, by striking out the items relating to—

(A) parts 1 and 5 and section 233 of part 2 of title II,

(B) sections 303, 304 and 312, and

(C) title VII.

(c) The Energy Research and Development Administration Appropriation Authorization Act of 1977 is amended by—

(1) striking out section 112 (42 U.S.C. 5907–a), relating to the appropriate technology grants program; and

(2) striking out title V (42 U.S.C. 7001–7011), relating to the Energy Extension Service.

(d) The Energy Policy and Conservation Act is amended—

(1) by striking out parts D (42 U.S.C. 6321–27), and G and H (42 U.S.C. 6371–72i.) of title III, relating to State energy conservation plans and energy conservation programs for schools and hospitals and buildings owned by units of local governments and public care institutions; and

(2) by striking out the items in the table of contents relating to parts D, G and H of title III.

(e) The Energy Conservation and Production Act is amended—

(1) by striking out part A of title IV (42 U.S.C. 6851–72), relating to weatherization assistance for low-income persons; and

(2) by striking out the items in the table of contents relating to part A of title IV.

(f) The National Housing Act of 1949 is amended by striking out section 504(c) (42 U.S.C. 1474(c)), relating to the rural weatherization grant program.

○

The CHAIRMAN. The first witness this morning is the Honorable Thomas J. Tauke, Representative from Iowa. Glad to have our colleagues from the other side of the Capitol with us this morning.

STATEMENT OF HON. THOMAS J. TAUKE, A U.S. REPRESENTATIVE FROM THE STATE OF IOWA

Mr. TAUKE. Mr. Chairman, I thank you for the opportunity to testify before this committee, and if it meets with the approval of the Chair, I intend to submit my testimony for the record and make a few opening comments.

The CHAIRMAN. Your entire statement will appear in the record. You may proceed.

Mr. TAUKE. I should begin by saying that I do represent the State of Iowa, and the State of Iowa is a State which imports 99 percent of the energy that we use. We have found out four times during the last 8 years that it can be very dangerous to be reliant on others for your energy sources, so as a result Iowans have attempted to do everything we can to first of all, conserve energy, and second, to pursue as many alternative sources of energy as are available to us within our State.

I believe that now as we are reviewing the Federal budget it is very important for us to recognize that there have been very substantial cuts in spending in the energy area. There has also been the theory promulgated by this administration that we should rely primarily on the marketplace in order to determine energy policy.

I think it is important that we rely on the marketplace, primarily, for our energy policy, but I do think when we find methods of producing energy which are relatively low cost, that it is important for us to provide assistance in order to encourage the development of those sources.

Of course, one of the major sources of energy in a sense is conservation. Perhaps that is the most cost-effective way of assisting us in combating our energy problem, and that is why I think it is essential that we continue to maintain some kind of commitment to conservation at the Federal level.

This year we don't know, of course, what conservation funding will turn out to be. It might be the figure of about 496 million included in the Reconciliation Act legislation. It might be perhaps 195 million included in the President's first budget message. It could be with the latest budget cuts something less than that, but I think that while we don't know what the budget for some of these programs might be, it is fair to say that our categorical programs have not worked well, and I won't go into a great deal of detail about that because some of that is included in my testimony, but I think that as we move forward then away from the categorical programs which aren't working as well as they might, there are a few things that we ought to keep in mind.

The first is flexibility. I commend you, Mr. Chairman, for the legislation you have proposed because of the flexibility it contains. For a State like my own, it is very important that we have the ability to do with whatever Federal funds are available the things that are going to be most helpful to our State, and I think that by trying to push each State into a certain energy path such as some of our categorical programs have done, it is a mistake because each of the States needs to address its energy problem in a somewhat unique way, so I commend you on the flexibility in your program.

However, I am somewhat concerned about the budgetary commitment or the authorization level made in the McClure bill, and I hope that in the course of your consideration that you would look at legislation which I have introduced on the House side, H.R. 4163. Under my bill, the over $280 million available for low-income weatherization under the changes in the fuel assistance program enacted in the Reconciliation Act would be reduced to $200 million and transferred to the State and local energy block grants, but would be available only for the low-income weatherization program.

However, an additional $300 million would be available for other activities under the block grant. This $300 million would be offset by repeal and transfer to the States of several DOE Federal conservation and regulatory programs such as the residential conservation service program and other DOE buildings and community assistance programs. I think that we can have a block grant authorization of approximately $500 million without doing damage to the budget, and I hope that you will look at the legislation that I have proposed in the Senate.

Thank you very much, Mr. Chairman.

[The prepared statement of Congressman Tauke and the text of H.R. 4163 follow:]

STATEMENT BY THE HONORABLE THOMAS J. TAUKE

Before the Senate Energy and Natural Resources Committee

September 29, 1981

Hearing on State and Local Energy Block Grants - S. 1544 & S. 1166

I appreciate the opportunity to testify before this Committee on State and Local Energy Block Grant legislation.

In particular, I would like to discuss the relative merits of the two bills before you, S. 1544 introduced by Senator McClure and S. 1166 sponsored by Senator Weicker. I would also like to compare these bills to H.R. 4163, similar legislation I have introduced in the House.

I represent a Midwestern state, Iowa. Iowa imports almost 99% of the oil, coal and gas its citizens use to heat their homes, power their tractors and vehicles, run their factories and light their offices. Four times in the last 8 years -- during the 1973 and 1979 oil shortages, the 1977 natural gas emergency and the 1978 coal strike -- Iowans found out the hard way how relying on other regions of America to provide their energy needs can be every bit as disruptive as relying on OPEC oil.

For these reasons, Iowa has adopted a "can do" philosophy toward dealing with its energy dependence. Instead of relying on one or two sources of energy to the exclusion of all others, Iowans are pursuing all sources of potential energy within their borders -- from gasohol to recycled oil, from solar and biomass to nuclear, and from weatherization to exotic forms of natural gas and coal.

Under the Iowa Energy Policy Council, the State is aggressively promoting and assisting in these "can do" energy policies. The key is that the State is unwilling to rule out any potential energy source within its borders.

For these reasons, I strongly believe any block grant legislation for State and local energy activities should include the flexibility to reflect the "can do" multiple-path approach of the State of Iowa toward State energy policies.

Need for Legislation

Before I turn to specific comments on the legislation before you, I would like to address the need for the legislation.

In the current uncertainty over the latest round of budget cuts, we do not yet have DOE's revised budget submission before us. We do not know whether the budget will include $376 million for conservation (as the Reconciliation Act authorized), $195 million (as the President's revised budget proposed in March), or some figure even lower, to reflect the new budget stringencies.

However, what we do have is abundant evidence the old DOE categorical grant programs for State and local governments -- EPCA and ECPA grants for State energy offices, schools and hospitals grants, the Energy Extension Service, appropriate technology grants, as well as the low income weatherization program -- are all badly flawed and will not stand the test of our current fiscal priorities unless substantially reformed.

Let me give you a few examples:

-- The low income weatherization program has been caught in a classic legislative Catch 22 ever since enactment. On the one hand, the requirement that local weatherization agencies use CETA workers to install caulking and weatherstripping has caused wide-spread accounting abuses, slowed production, and diverted attention from the basic goal of weatherization. At the same time, the Federal government has initiated nearly a $2 billion a year program to subsidize the energy consumption of exactly those same groups -- the needy and the elderly -- low income weatherization is designed to help. I am referring to the Fuel Assistance Program. So what did we do in reconciliation? Instead of reforming the weatherization program, we reduced CETA and created a whole new separate weatherization program within the Fuel Assistance Program.

-- The EPCA and ECPA State Energy Office grants, far from encouraging innovative and flexible State energy programs, have forced States to spend hundreds of thousands of Federal tax dollars writing energy plan after energy plan -- without permitting a penny to be spent actually implementing the plans through Federal-State cost-sharing to cover the capital costs of weatherization and renewable energy expenditures.

And in 1979, when the gas lines stretched from coast to coast and the State energy offices were the only front line defense we had to handle the crisis -- the State energy offices were prohibited from spending a penny of their grant money to respond to the crisis.

-- The Schools and Hospitals Categorical Grant Program has been very successful, in terms of both results and administrative efficiency. Yet even here the inflexibility of the grant program has wasted tax dollars. For example, as the program is now structured, the conservation grant money is reserved exclusively for schools and public hospitals, even though many States and local governments may conclude more energy could be saved at lower cost by retrofitting other State and local government buildings.

In addition, by requiring an approved energy conservation design by a professional engineer prior to expenditure of the grant money, the program has encouraged schools and hospitals to "gold-plate" their energy management programs instead of first relying on in-house expertise and common-sense energy conservation techniques. A recent GAO study concluded the Schools and Hospitals Program may be one of the least efficient of our energy conservation programs.

All these existing programs have one common element: By rigidly dictating to States and local governments the types of energy programs they should undertake, these categorical grants hamstring local efforts to conserve energy and stifle the innovative spirit of State and local governments to meet their own energy needs.

For these reasons, I believe DOE's State and local conservation programs need to be substantially reformed if they are to survive the budget ax.

In order that States and local governments may have the extra flexibility they need to make up for diminishing Federal dollars, I strongly support the flexible, block grant approach in Senator McClure's bill. Although Senator Weicker's bill is also an excellent start, I would recommend it be modified to increase the flexibility of all regions of the country to respond to their energy needs creatively, instead of pigeonholing 65% of the Federal dollars into a weatherization program which only benefits certain regions.

The Budget Question

Although I prefer Senator McClure's block grant flexibility to Senator Weicker's, I do not agree that the $200 million authorization in the McClure bill is sufficient to provide a balanced program.

At the same time, any State and local energy block grant runs into the cold reality of our highest fiscal priority: to balance the Federal budget.

For this reason, absent off-setting cuts in other DOE programs, the $400 million authorization in the Weicker bill is unrealistic.

H.R. 4163, the block grant bill I introduced in the House, offers an alternative to both approaches. Under my bill, the over $280 million available for low income weatherization under the changes in the Fuel Assistance Program enacted in the Omnibus Reconciliation Act would be reduced to $200 million and transferred to the State and local energy block grant, but would be available only for low-income weatherization purposes. An additional $300 million would be available for other activities under the block grant. This $300 million could be off-set by repeal and transfer to the States of several DOE Federal conservation and regulatory programs, such as the Residential Conservation Service Program, and other DOE buildings and community systems programs.

My bill represents a compromise between the need of certain regions of the country for a high-priority weatherization program, and the need of all regions for increased flexibility in the administration and implementation of Federal energy conservation and renewable energy programs.

At this time, I would be happy to answer any of your questions.

I

97TH CONGRESS
1ST SESSION

H. R. 4163

To establish a State and local energy block grant program.

IN THE HOUSE OF REPRESENTATIVES

JULY 15, 1981

Mr. TAUKE (for himself and Mr. PURSELL) introduced the following bill; which was referred to the Committee on Energy and Commerce

---

A BILL

To establish a State and local energy block grant program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "State Energy Block Grant Act".

FINDINGS

SEC. 2. The Congress finds that—

(1) during the last several years the Federal Government has established numerous programs for

energy-related assistance for States and local governments,

(2) despite the growth in Federal funding of energy-related activities, State and local governments retain primary responsibility for a significant portion of such activities,

(3) with the growth in the number of Federal assistance programs and in the associated requirements imposed on recipients, Federal decisions have replaced State and local determinations of what energy-related activities should be undertaken through publicly financed programs,

(4) the proliferation of Federal programs has resulted in substantial inefficiencies in the way energy programs are conducted, in burdensome administrative costs, and in spending patterns that frequently do not reflect the priorities and needs of the residents of each State,

(5) the best use of governmental resources in meeting the Nation's energy needs requires that the Federal Government support and not displace the State and local role in determining which energy conservation or supply development activities to engage in and how best to carry them out, and

(6) allowing the States and local governments substantial flexibility in the use of Federal financial assistance through consolidation of related assistance programs into a single grant with minimum requirements will help ensure a proper governmental balance, will permit coordinated planning at the State and local level, and will help ensure the effective use of the Nation's resources in the energy area.

ALLOCATION OF FUNDS

SEC. 3. (a) For the purposes of providing the financial assistance authorized by this Act, the Secretary shall allocate annually the sums available for financial assistance under this Act among the States in the following manner:

(1) 75 per centum shall be allocated on the basis of the resident population of the States; and

(2) 25 per centum shall be allocated equally among the States.

(b) Notwithstanding subsection (a), the Secretary may prescribe a maximum allocation for the Virgin Islands, Guam, American Samoa, the Government of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

PAYMENTS TO STATES; STATE SHARE

SEC. 4. (a) The Secretary shall make payments as provided by section 203 of the Intergovernmental Cooperation

Act of 1968 (42 U.S.C. 4213) to each State from its allotment under section 3 from amounts appropriated for any fiscal year for its use under section 5 or for grants to local units of government under section 6 (to the extent provided in such section).

(b) Any State receiving assistance under this Act shall provide matching funds from non-Federal sources in an amount equal to—

(1) in the case of awards in fiscal year 1982, 20 per centum of the amount awarded to the State under this Act; and

(2) in the case of awards in fiscal years thereafter, 35 per centum of the amount awarded to the State under this Act.

USE OF GRANT MONEY

SEC. 5. (a) A State may use amounts paid to it under section 4 for energy conservation and supply activities, including but not limited (except as limited under subsection (c), or as provided under subsections (b) and (d)) to—

(1) energy conservation,

(2) energy conservation measures and weatherization in public or nonprofit institutional buildings, including schools, hospitals, public care institutions, and local governmental buildings,

(3) weatherization for low-income families,

(4) residential weatherization,

(5) residential and commercial energy audits and technical assistance,

(6) energy emergency preparedness,

(7) renewable energy applied research and development,

(8) energy supply applied research and development,

(9) transportation energy efficiency, including traffic management and mass transportation,

(10) coastal and inland energy impact assistance,

(11) energy conservation and supply development in the agricultural sector,

(12) applied research and development of energy efficiency in buildings, and

(13) facilities associated with energy transportation.

(b) Amounts described in subsection (a) may not be used—

(1) by any State during any fiscal year if the costs for planning, data collection, forecasting, policy analysis, and personnel and administration associated with State programs funded under this Act exceed 20 per centum of the amount of the total costs of such programs for such year;

(2) for costs of applying for a grant under this Act;

(3) for promoting energy conservation or supply development through the use of television, radio, newspapers, or other mass media; or

(4) for satisfying any requirement for the expenditure of non-Federal funds as a condition for the receipt of Federal funds.

In applying the limitation of paragraph (1), there shall not be taken into account any direct labor costs associated with weatherization activities.

(c) A State shall expend amounts described in subsection (a) by the end of the fiscal year following the fiscal year for which they were appropriated.

ALLOCATION OF FUNDS FOR CATEGORIES OF COMMUNITIES WITHIN A STATE

SEC. 6. (a) The Secretary shall allocate 20 per centum of the funds available to each State under section 3 to the following three categories based on the respective population of each category within that State:

(1) metropolitan cities and urban counties in metropolitan areas;

(2) units of local government within metropolitan areas (other than metropolitan cities and urban counties); and

(3) nonmetropolitan areas.

(b)(1) Metropolitan cities and urban counties in metropolitan areas shall be entitled to annual grants from the portion allocated to them under subsection (a)(1). The Secretary shall determine the amount of the grant to be made by the Governor of the State to each metropolitan city and urban county, and such grants shall be the greater of an amount that bears the same ratio to the total available funding for all metropolitan areas as either—

(A) the average of the ratios between—

(i) the population of that metropolitan city (or urban county) and the population of all metropolitan areas;

(ii) the extent of poverty in that metropolitan city (or urban county) and the extent of poverty in all metropolitan areas; and

(iii) the extent of housing overcrowding in that metropolitan city (or urban county) and the extent of housing overcrowding in all metropolitan areas; or

(B) the average of the ratios between—

(i) the age of housing in that metropolitan city (or urban county) and the age of housing in all metropolitan areas; and

(ii) the extent of poverty in that metropolitan city (or urban county) and the extent of poverty in all metropolitan areas.

In determining the average of the ratios under subparagraph (A) the ratio involving the population shall be counted once, the ratio involving the extent of poverty shall be counted twice, and the ratio involving housing overcrowding shall be counted once; and in determining the average of the ratios under subparagraph (B) the ratio involving extent of poverty shall be counted one and one-half times, and the ratio involving the age of the housing shall be counted two and one-half times.

(2) The Governor shall make grants to units of local government within metropolitan areas (other than metropolitan cities and urban counties) from the portion of funds allocated to them under subsection (a)(2) and to nonmetropolitan areas from the portion of funds allocated to them under subsection (a)(3) through either an existing or newly developed process acceptable to both the Governor and the statewide organizations representing units of local government. The Governor shall, in consultation with the statewide organizations representing units of local government, develop selection criteria and a system for managing the solicitation, application, and selection process. Grants shall be made based on applications submitted to the Governor.

(3) The Secretary shall, in order to compensate for the discrepancy between the total of the amounts to be allocated under paragraph (1) and the total of the amounts available, make a pro rata reduction of each amount allocated for the metropolitan cities (or urban counties) so that the metropolitan city (or urban county) in each State will be allocated an amount which represents the same percentage of the total amount available under paragraph (1) as the percentage which metropolitan cities (or urban counties) of the same State would have been allocated under such paragraph if the total amount available under this paragraph had equaled the total amount which was allocated under such paragraph.

(4) Any funds under this Act to which a metropolitan city or urban county in a metropolitan area is entitled, but which are not requested or disbursed, shall be made available to other eligible units of local government within that same metropolitan area. If no such recipients are available, then the funds shall be made available to the other metropolitan areas of the State under paragraph (2). If no such recipients are available in that State then the funds shall be made available to eligible recipients in other States.

(5) Any unit of local government receiving assistance under this Act from a State shall provide matching funds from non-Federal sources in an amount equal to—

(A) in the case of awards in fiscal year 1982, 20 per centum of the amount awarded to the local government under this Act; and

(B) in the case of awards in fiscal years thereafter, 35 per centum of the amount awarded to the local government under this Act.

REPORT ON INTENDED EXPENDITURES

SEC. 7. (a) Prior to expenditure by a State of payments made to it under section 4, the chief executive officer of the State shall prepare a report on the intended use of payments the State is to receive under this Act, including—

(1) information on the types of services to be provided and the categories of characteristics of individuals to be served;

(2) the intergovernmental process applicable to the administration of the program;

(3) a description of the needs in such State for weatherization for low-income families and energy conservation measures and weatherization in public and nonprofit institutional buildings or nonprofit institutional buildings (including schools, hospitals, public care institutions, and local governmental buildings), and a statement of the priority intended to be given to meeting such needs through assistance under this Act; and

(4) a description of any low-income assistance program covered by such payments.

(b) The report shall be made public within the State in such manner as to facilitate comment from any person (including any Federal or other public agency) during development of the report and after its completion. The report shall be revised throughout the year as may be necessary to reflect substantial changes in the activities assisted under this Act, and any revision shall be subject to the requirements of the preceding sentence.

(c) The Secretary shall review each report and revision submitted under subsection (a). If the Secretary finds that the intended use of payments under section 5 or 6 by a State is not in accordance with the purposes of this Act or that the State has not provided for an equitable distribution of funds or of services within the State, the Secretary shall disapprove such report or revision. Any such disapproval shall not be subject to judicial review. If a report or revision is disapproved the State which submitted it shall, within thirty days of the date of such disapproval, make such revisions in its use of such payments or its distribution of funds or services (consistent with the express provisions of this Act) so that such use is in accordance with the purposes of this Act or such distribution is equitable and shall report such revisions to the Secretary within thirty days after disapproval.

REPORTS AND AUDITS

SEC. 8. (a)(1) Each State shall prepare reports on its activities under this Act. Reports shall be in such form, contain such information, and be of such frequency as the State finds necessary to secure an accurate description of those activities (including identification of contracts entered into), to secure a complete record of the purposes for which funds were spent, to determine the extent to which funds were expended consistently with the reports required by section 7, and to obtain an accurate financial statement of the programs funded under this Act.

(2) The State shall make copies of the reports required by this section available for public inspection within the State. Copies shall also be provided to the Congress, the Department of Energy, the Comptroller General, and, upon request, to any interested public agency which may provide its views on such reports to the Congress.

(b) Each State shall periodically audit its expenditures from amounts received or made available under this Act. Such State audits shall be conducted by an entity independent of any agency administering a program funded under this Act, in accordance with generally accepted accounting principles. Within thirty days following the completion of each audit, the chief executive officer of the State shall submit a copy of that audit to the legislature of the State and to the

Secretary. Each State shall repay to the United States amounts found not to have been expended in accordance with this Act or the Secretary may offset such amounts against any other amount to which the State is or may become entitled under this Act.

(c) The Comptroller General, or any duly authorized representative, shall have access to pertinent books, documents, papers, records, and reports of any recipient of funds under this Act.

AUTHORIZATION OF APPROPRIATONS

SEC. 9. (a) There is authorized to be appropriated to the Department of Energy for purposes of carrying out the preceding provisions of this Act—

(1) for fiscal year 1982, $272,900,000 plus $22,100,000 of the amount appropriated for buildings and community systems, and $5,000,000 of the amount appropriated for economic regulation, which amounts were deferred until fiscal year 1982 by the Act entitled "An Act making supplemental and further continuing appropriations for the fiscal year ending September 30, 1981", approved June 5, 1981 (Public Law 97-12), and

(2) for fiscal year 1983, $300,000,000.

(b) Funds appropriated under this section may remain available until expended.

USE OF CERTAIN HOME FUEL ASSISTANCE FUNDS

SEC. 10. (a) Notwithstanding any other provision of law, in addition to the amounts otherwise available under this Act, $200,000,000 of amounts appropriated each fiscal year under any Federal program to assist eligible households in meeting home energy fuel costs shall be paid to the States for their use for the following purposes (directly or through agreements with public or private organizations):

(1) low income residential weatherization or other energy-related home repairs, or

(2) purchasing, providing, and installing low-income (A) weatherization or energy conservation materials, (B) devices to utilize renewable energy resources, and (C) improvements in heating or cooling systems designed to improve the heating or cooling efficiency of the dwelling, as such materials, devices, and improvements are defined by the State.

(b)(1) Amounts available under this section shall be allocated annually among the States in the same manner as was provided under part A of title IV of the Energy Conservation and Production Act (relating to low-income weatherization assistance), as in effect immediately before the effective date of this Act.

(2) Amounts available to a State under this section shall be subject to the provisions of this Act, with the following exceptions:

(A) section 3 regarding allocation of funds;

(B) section 5(a) regarding use of grant money; and

(C) section 6 regarding allocation of funds to communities within a State.

DEFINITION OF STATE

SEC. 11. For purposes of this Act, the term "State" means each of the fifty States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Government of the Northern Mariana Islands, the Virgin Islands, and the Trust Territory of the Pacific Islands.

TERMINATION

SEC. 12. On or after October 1, 1984, the preceding provisions of this Act shall cease to be effective.

REPEALERS AND TECHNICAL AND CONFORMING AMENDMENTS

SEC. 13. (a) The Energy Security Act is amended—

(1) by striking out sections 401 through 404, 406 and section 409 (42 U.S.C. 7371–7374, 7375, and 7376) relating to renewable energy initiatives;

(2) in title V, by striking out subtitles B through F, and H, relating to the residential conservation service, residential energy efficiency program, the commer-

cial and apartment conservation service, the weatherization assistance program, energy auditor training and certification, and coordination of Federal energy conservation factors and data; and

(3) by striking out the items in the table of contents relating to—

(A) sections 401 through 404, 406, and 409; and

(B) subtitles B through F and H of title V.

(b) The National Energy Conservation Policy Act is amended—

(1) in title II, by striking out parts 1 and 5, relating to residential energy conservation and weatherization assistance for low-income persons;

(2) in part 2 of title II, by striking out section 231, and in section 233, by striking out "part A of the Energy Conservation in Existing Buildings Act of 1976,";

(3) by striking out title III, relating to energy conservation programs for schools and hospitals and buildings owned by units of local governments and public care institutions;

(4) in title VI, by striking out part 2, relating to State energy conservation plans;

(5) by striking out title VII, relating to the commercial and apartment conservation service; and

(6) in the table of contents, by striking out the items relating to—

(A) parts 1 and 5 and section 231 of part 2 of title II;

(B) titles III and VII; and

(C) part 2 of title VI.

(c) Paragraphs (3) and (4) of section 504(c) of the Housing Act of 1949, and subparagraph (2) of the last paragraph of section 2(a) of the National Housing Act, are each amended by inserting "(as in effect immediately before the date of the enactment of the State Energy Block Grant Act)" after "Existing Buildings Act of 1976" each place it appears.

(d)(1) The National Energy Extension Service Act (42 U.S.C. 7001–7011) is hereby repealed.

(2) Section 103 of the Energy Reorganization Act of 1974 (42 U.S.C. 5801) is amended by striking out paragraph (7), and by redesignating paragraphs (8) through (12) as paragraphs (7) through (11), respectively.

(e) The Energy Research and Development Administration Appropriation Authorization Act of 1977 is amended by striking out section 112 (42 U.S.C. 5907–a), relating to the appropriate technology grants program.

(f) The Energy Policy and Conservation Act is amended—

(1) by striking out parts D, G, and H of title III, relating to State energy conservation programs and energy conservation programs for schools and hospitals and buildings owned by units of local government and public care institutions; and

(2) in the table of contents, by striking out the items relating to parts D, G, and H of title III.

(g)(1) The Energy Conservation and Production Act is amended--

(A) by striking out parts A, B, and C of title IV, relating to weatherization assistance for low-income persons, State energy conservation plans, and national energy conservation demonstration; and

(B) in the table of contents by striking out the items relating to parts A, B, and C of title IV.

(2) The Housing and Urban Development Act of 1970 is amended by striking out section 509.

EFFECTIVE DATE; TRANSITION PROVISION

SEC. 14. (a) The provisions of this Act shall take effect October 1, 1981.

(b)(1) Except as provided in paragraph (2), any amounts appropriated for any fiscal year before fiscal year 1982 for any program under any provision of law repealed under section 13—

(A) if not granted or otherwise obligated, shall be available for financial assistance as provided under this Act, or

(B) if granted or otherwise obligated, shall con¢tinue to be governed by the provisions applicable to such funds immediately prior to the effective date of the repeals under section 13.

(2) If the chief executive officer of any State so elects, the provisions of this Act (other than subsection (a)) shall apply with respect to any funds granted or otherwise obligated to a State under such a program as if such amounts were granted to the State under this Act (in lieu of the provisions associated with such other program).

(3) Exept as provided in the preceding provisions of this subsection, nothing in this Act shall be considered to affect any financial arrangement made or entered into by the Secretary of Energy before the effective date of this Act.

○

The **Chairman**. Thank you very much, Congressman. I appreciate your testimony and the suggestions that are included not only in your informal remarks, but also in your prepared statement which I have read. I also would be interested in the other evidence and material that is produced in your subcommittee in the House. The question is how to adjust the relationships between the Federal and State governments to improve the delivery system for these programs so we can get the best that we can with the available funds.

Thank you very much.

Mr. **Tauke**. Thank you.

The **Chairman**. Senator Domenici.

STATEMENT OF HON. PETE V. DOMENICI, A U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator **Domenici**. Mr. Chairman, I just want to commend you as the prime sponsor of this measure, and I join you as a cosponsor. Obviously we need to hear from those that will be affected, but it is equally obvious that this is an appropriate time for considering the budgetary restraints, and taking a look at the programs that are included within the block grant.

It is obvious to me that there is great need to see what is happening with the affected programs. They have been confused from the standpoint of who is running them, and back and forth between given agencies of Government as far as some of the major programs.

From my standpoint, I would hope that some action that does block these programs would take effect, and not in the too distant future. It seems to me with that because of the additional cuts that are occurring at the State level the States do need some flexibility in order to get the job done and get it done right.

On the other hand, I am interested, as I am sure you are, in listening to those constituent groups who have concern about how they would react with the States. Mr. Chairman, with reference to block grants I have found in my State they are more concerned about how the State would treat them than they are about the propriety of the grants. I think most of my constituents feel that if the States would give them a fair hearing, and give them an opportunity to present their cause and not act arbitrarily, that they would go along with the blocks, but they are concerned that they haven't dealt with the States. It is rather ironic that they would be more concerned about their State legislatures and their Governors than they are about us with reference to the programs, but I have found that, and I am sure you will have some of that during these hearings.

Thank you very much. I do hope we can move with dispatch because this committee and the Senate has to know what is going on in some of these programs, and this is the best of opportunities as part of the block grant hearing to find out.

Thank you very much.

The **Chairman**. Thank you very much, Senator Domenici.

I thank you for your support. Certainly the fact of your appearance here this morning, as well as your cosponsoring the legislation, is evidence of your interest and concern. I know that the constituent groups are concerned about changing the delivery system. They are familiar with the existing modes. They know how to deal with them, and they are concerned that new channels of communication have to be opened. They are obviously concerned.

I will insert a statement from Senator Heize at this point.

[The prepared statement of Senator Heinz follows:]

STATEMENT OF HON. JOHN HEINZ, A U.S. SENATOR FROM THE STATE OF PENNSYLVANIA

Mr. Chairman, I commend you for calling these hearings and keeping alive debate on the development of an appropriate energy assistance plan. Consevation in all sectors must play a vital role in our country's energy policy in the coming years. As the decontrol of oil prices pushes home fuel costs ever higher, we must pay special attention to those who lack the financial resources to respond to new incentives to conservation.

I therefore urge my colleagues to realize that while every aspect of every program under our consideration today may not be working perfectly, any approach that fails to consider the individual problems or merits of each program endangers those efforts that are proving successful. As we debate on how best to administer conservation programs and where to trim the unnecessary, I emphasize the extreme vulnerability of the low income and elderly to the dangers of freezing winters, dilapidated housing, heat stress, and unstable oil supplies.

Because of the importance of the low income weatherization program to older Americans, the Special Committee on Aging, of which I am Chairman, held hearings early in this session entitled "Energy and the Aged." I would like to share some of the information gathered at that hearing with my colleagues as we consider the importance of Federal conservation efforts at this time.

To set the context in which the weatherization effort should be considered, I want to point out that, according to the Department of Energy, it costs low income households 30 to 35 percent of their incomes to heat with fuel oil, compared to a 7 or 8 per cent average for all U.S. households. Furthermore, despite the success of past weatherization efforts, which have made improvements in over 800,000 homes to date, 12 million eligible low income homes remain unserved by this type of effort. According to the Consumer Energy Council, a one-time investment of $986 by the DOE low income weatherization project provides an average energy savings of 26.7 percent. Mr. Chairman, this program works, and it seems to me no responsible plan for increasing government efficiency should endanger a program that reduces the demand for Federal assistance, substantially upgrades low income housing, and reduces our Nation's dependence on imported oil.

This was the unanimous conclusion of public witnesses at the Committee on Aging's hearing, witnesses ranging from program administrators and fuel dealers to aging experts and consumers. The importance of the weatherization program to the low income and elderly cannot be overstated. The simple economic fact is that despite increases in income, the poor will have lost 16 percent of their total purchasing power to energy costs alone in 9 years. Clearly, the market has provided the incentive for conservation, but the market seems unwilling or unable to provide for essential human needs. The fact is that poor and elderly households lack the $800 to $1200 in cash or credit to respond to skyrocketing home fuel bills, and there is no bank or other source where they can beg or borrow it.

At the same time, the elderly are especially vulnerable to extremes of temperature. They are known to be at high risk of heat stress and hypothermia, a lethal lowering of core body temperature. Furthermore, elderly people who cannot afford to maintain or heat their old homes are being forced into nursing homes. Those that stay are eligible for energy assistance payments, but without weatherization we will find ourselves spending millions of dollars to keep people barely warm in inadequate housing.

The weatherization assistance program responds to these needs, it does so effectively, and it does so economically.

Given the importance of this program, funding levels are necessarily a matter of concern. All witnesses before the Aging Committee agreed that last year's levels were inadequate, that low-income weatherization could rapidly expand, saving even more energy and money, if the Federal investment was increased. Now, with energy costs still rising and the staff and institutional resources for weatherization assistance severely cut back, the last measure we should consider would be further reducing our support for conservation. I agree there are some conservation measures that are producing better results than others, but let us not throw the baby out with the bath water here. Let us not permit the issue of Federal and State roles to cloud the fact that people who literally cannot afford to heat their homes will suffer this winter. If anyone wonders whether or not we can afford a low-income weatherization program, I bring to their attention just two of the hundreds of comments I have heard from older Americans on this issue. In the record of the Committee on Aging's "Energy and Aged" hearing is a letter from an elderly woman to Senator Cohen: "Last week, the crew came from Penquis and did the most thorough and wonderful job on insulating my home. I was just overcome with the whole business since I will be saving fuel from now on. It would be an impossibility to keep this house if it wasn't for the help I get." At the same hearing, 90-year-old Mrs. Mona Musser of Millersburg, Pa., stated flatly: "The only reason I am able to stay in my home and enjoy it is because of the programs."

In conclusion, Mr. Chairman, I commend you again for bringing forward this most pressing issue. The days are already growing cold, and another winter will soon be upon us. Clearly, if our most vulnerable citizens are to be well served this winter, we must provide a flexible, adequately funded, and responsive program of conservation assistance that can be adjusted to regional needs. At the same time, as I believe the testimony cited here demonstrates, we must take care to preserve the benefits of a program that successfully addresses a matter of truly national urgency.

The **CHAIRMAN**. Senator Bradley.

Senator **BRADLEY**. I think there are a couple of your statements I would like to clarify.

You said that you would prefer if it be funded at a $500 million level?

Mr. **TAUKE**. Yes, Senator Bradley. I have included in the program that I have offered $200 million of the $280 million that is currently authorized under the Reconciliation Act for weatherization, and set that as one portion of the block grant. It removes, of course, any of the—some of the regulations that have troubled the weatherization program in the past from the program, and I think makes it more possible for the States to run that program effectively.

Then in addition to that, there is $300 million, much of which is currently allocated for individual grant programs, and that money is in a second portion of the total block grant to the States. There is a different formula for each portion. The weatherization portion goes on the current weatherization formula. The rest of it goes on the population and the 75 percent of the population, 25 percent divided equally among the State.

Senator **BRADLEY**. You feel that it is important to have some portion of that block grant as you have specified for things such as conservation?

Mr. **TAUKE**. I think it is important in part because of the political situation, and in part because of the need to designate a portion of the program for weatherization, but in addition to that, I think there needs to be flexibility in the program. In the bill I have offered we have $300 million that the States can direct toward any conservation or other energy program that they wish to pursue.

In our State, for example, because of the nature of the State we probably would want to spend some of that money in promoting alcohol fuels. Other States would perhaps have totally different things that they would like to do with the funds.

Senator **BRADLEY**. Do you find the formula in the bill acceptable, 75 percent based on population, 25 percent distributed equally among the States?

Mr. **Tauke**. I find that formula acceptable. I know that every time we get into an issue like this there are lots of discussions about formulas. I think that at least on the House side and I can speak better on that than certainly I can on the Senate side, but on the House side that formula perhaps has a reasonable chance of acceptance. There are certainly other formulas that could be worked out that would be somewhat acceptable.

On the weatherization part of the formula, that obviously would not work. There I think the current formula for distribution of weatherization funds is preferable. That is why we have included it in the legislation.

Senator **Bradley**. So you think that at least some portion—if you were going to put weatherization into a general block grant, you would feel that some portion of it should be allocated according to, say, the number of cold days in a year, the various temperature requirements?

Mr. **Tauke**. I think that makes a great deal of sense. Obviously those of us from the regions of the country that experience the colder weather recognize that there is a great need for weatherization in our area, perhaps greater from the health standpoint than in other areas of the country. Certainly from an energy saving standpoint it is more reasonable to put greater portions of the money into those areas where you have a lot of cold weather.

Senator **Bradley**. Do you have any hesitation at all about providing this money for Governors to administer? Do you fear that they might be any less able to administer honestly than, Federal Government?

Mr. **Tauke**. The experience with the Governor in our State is very encouraging, so I think that we would probably be very pleased to have it administered at the State level, and I think there is a general rule that we certainly would have no more problems with administration at the State level than we have had with administration at the Federal level, and I am confident that it would work much better.

Senator **Bradley**. Thank you very much.

Mr. **Tauke**. Thank you, Senator.

The **Chairman**. Thank you, Senator Bradley.

Senator Ford?

Senator **Ford**. I am troubled and puzzled about where we are.

How many of the present programs are matching?

Mr. **Tauke**. How many of the present programs are matching?

Senator **Ford**. Do you know?

Mr. **Tauke**. We have several matching programs.

Senator **Ford**. We are going to eliminate all the matching programs now and put them into one categorical block grant.

Mr. **Tauke**. Pardon?

Senator **Ford**. We are going to eliminate all the present programs and put it into a block grant to the States, and they can do anything they want to as long as they match it.

Mr. **Tauke**. Under the legislation that I am proposing there is a 20 percent State match the first year and 35 percent thereafter. At the current time, for example, I believe in the schools and hospitals program it is a 50 percent State match, so I don't think that the fiscal constraint on the States in terms of matching would be any more than it is right now if they match the current programs. At least that is what we tried to achieve when we fashioned the legislation.

Senator **Ford**. How close is yours? Is S. 1544 identical to your bill?

Mr. **Tauke**. No, it is not identical.

Senator **Ford**. Close?

Mr. **Tauke**. Is S. 1544 the McClure bill?

Senator **Ford**. Yes.

Mr. **Tauke**. It is identical in the sense that we permit a great deal of flexibility in the program, but it is not identical in the sense that I include $200 million simply for weatherization, and then $300 million for other energy programs.

I believe in that sense we are consolidating more programs than the McClure bill does and also providing more money to the State.

Senator **Ford**. Weatherization is not matching in your piece of legislation then?

Mr. **Tauke**. The whole grant is matching in our legislation.

Senator **Ford**. The whole grant is matching?

Mr. **Tauke**. Yes.

Senator **Ford**. Under the present law it is not?

Mr. **Tauke**. Under present law it is not. That is true.

Senator **Ford**. You say the 75-25 based on population and allocated equally among the States is an acceptable formula?

Mr. **Tauke**. That is an acceptable formula for the energy conservation portions of the program, excluding weatherization. I think from a practical point of view it would be very difficult to pass legislation which did not reflect in the weatherization portion the current formula for fund distribution. That is why we set up in our legislation in a sense two grants in the block grant portion, one portion relating to weatherization which is distributed on the current funding formula, and a second portion relating to the remainder of the funds, and that is distributed on the 75-25.

Senator **Ford**. It sounds like 25 percent is a pretty good hunk of money, but when you get one-half of 1 percent per State it is not going to do very much, and if you can do most anything you want to with this money, I guess you can go out and maybe drill a hole and hope you produce oil with it as long as you can match it. You might get more energy savings that way. You can go down and drill a couple million dollars when you might be able to drill a 10,000-foot hole, see if you can get black gold.

I really have some problems. How much money do you have allocated in your piece of legislation?

Mr. **Tauke**. $200 million for weatherization which I might mention is down $80 million from the current authorization, and $300 million for other programs.

Senator **Ford**. Yours is $500 million?

Mr. **Tauke**. Right, but we also consolidated——

Senator **Ford**. Senator McClure's bill is $200 million, is that correct?

The **Chairman**. Yes.

Senator **Ford**. But you don't have weatherization; what does that do to weatherization then?

The **Chairman**. It can be used for weatherization.

Senator **Ford**. You repeal the DOE weatherization section under your bill?

The **Chairman**. Yes.

Senator **Ford**. And so then your bill just gives $200 million against what are we spending presently? Is that 340 or 50?

The **Chairman**. I am trying to remember the authorized levels, the previously appropriated levels, and the reconciliation levels. They are all different.

Senator **Ford**. The reconciliation level I think was around $340.

Senator **Domenici**. For all of them, or weatherization?

Senator **Ford**. All of them.

The **Chairman**. I think the total was $336 million identified in the reconciliation report.

[Extract from House Report 97-208, pp. 839-40 follows:]

CHAPTER 2—CONSERVATION, INFORMATION, AND REGULATION

Energy conservation (sec. 1005(1))

	Thousands
State and local programs	$336,000
Other programs	40,000
Subtotal	376,000
Less deferral	12,944
Net new BA	363,056

The total program authorization for energy conservation for fiscal year 1982 under this section is $376,000,000. These funds include $363,056,000 in new budget authority and $12,944,000 in funds deferred from fiscal year 1981.

Of the $376,000,000 total for conservation, $336,000,000 is authorized for State and local programs and $40,000,000 for other energy conservation programs.

These authorizations are intended to provide sufficient funds to carry out all statutorily mandated programs. Termination of funds was not recommended for any programs recommended for termination by the Administration.

Programs authorized under the $336,000,000 for State and Local Programs include energy conservation grants for Schools and Hospitals, the Low-Income Weatherization Program, the State Energy Conservation Program authorized under the Energy Conservation and Production Act of 1976 and the Energy Policy and Conservation Act of 1975, and the State emergency planning grants under the Emergency Energy Conservation Act of 1979.

The $40,000,000 for other energy conservation programs provided authorization for the following programs: the Residential Conservation Service; building energy performance standards; appliance energy efficiency; transportation utilization systems; and residential commercial retrofit.

Low-income weatherization

Regarding low-income weatherization, the conferees agreed to delete section 3119(d) of H.R. 3982 which repealed the statutory authority for the DOE low-income weatherization program and in addition agreed to delete a specific FY 82 authorization of $193,436,000 in section 3301(f). The managers wish to state their strong support for continuation of the low-income weatherization program in the Department of Energy and their expectation that within the amount authorized for State and Local Programs, as much as $175,000,000 may be available to continue this important program activity.

The conferees direct the Secretary of Energy, when making a determination pursuant to Section 413(d) of the Energy Conservation and Production Act whether low-income Indian tribe members are receiving benefits equivalent to assistance provided other low-income persons in a State and whether an Indian tribe would be better served by a direct grant to the tribe, to consider carefully any information which an Indian tribe may submit directly to the Secretary for purposes of making the determination required by section 413(d).

CONSERVATION*

[Dollars in thousands]

	Fiscal year 1981 budget authority	Fiscal year 1982 request	Conference
Operating expenses:			
Buildings and community systems:			
Building systems	22,475	17,547	23,500
Community systems	13,550	0	4,400
Urban waste	4,990	9,000	6,500
Technology and consumer products	20,100	0	11,000
Analysis and technology transfer	3,800	0	2,000
Program direction	6,778	3,100	5,000
Subtotal, buildings and community systems	71,693	29,647	52,400
Industrial:			
Waste energy reduction	24,800	0	12,400
Industrial process efficiency	17,500	0	8,000
Industrial cogeneration	16,500	0	5,200
Implementation and deployment	7,500	0	4,000
Program direction	2,600	965	2,465
Subtotal, industrial	68,900	965	32,065
Transportation:			
Vehicle propulsion R. & D.	55,400	11,000	34,800
Alternative fuels utilization	3,875	5,150	5,150
Electric hybrid vehicle	36,820	19,600	19,600
Program direction	2,930	1,280	1,600
Subtotal, transportation	99,025	37,030	61,150
State/local energy extension service	20,000	0	15,000
Multi-sector:			
Energy conversion technology	8,000	11,700	9,200
Inventors program	5,800	5,400	5,400
Appropriate technology	12,000	0	5,000
Program direction	700	190	400
Subtotal, multisector	26,500	17,290	20,000
Total, operating	286,118	84,932	180,615

*H. Rept. No. 97-28, p. 837.

Mr. **Tauke**. It was my understanding that the total we had was $376 million in the reconciliation report.

Senator **Ford**. That is like asking somebody what happened in an accident. We have got 15 different numbers.

Mr. **Tauke**. Part of the problem, Senator, is there are two weatherization programs, and Senator McClure does not include the weatherization money that is authorized under the Fuel Assistance Act. Under the Fuel Assistance Act 15 percent of the funds can be used for weatherization, and he does not include that money in his grant.

We do use that. We do cut out that $280 million so that accounts for in substantial part for the differences in funding between the McClure bill and our bill.

Senator **Ford**. Are you going to take all that money out? Talking about the Fuel Assistance Act, we lose that money?

The Chairman. The categorical weatherization assistance for low-income persons, that authorization is merged into this. Other programs are not.

Senator Ford. Well, the reconciliation gave 360———

The Chairman. Excuse me. There is one other program that I should mention. The rural weatherization program is repealed.

Senator Ford. How much money then have you repealed and merged?

The Chairman. Again, it will depend upon which you are referring to. I think the best estimate, is the omnibus budget reconciliation. If you refer to page 839, there is State and local programs of $336 million, and that is a rough comparison.

Senator Ford That is how much you have taken out of the bill?

The Chairman. Yes.

Senator Domenici. The comparision is that with $200 million.

The Chairman. Yes.

Senator Domenici. The rough comparison is $336 with $200 million.

Senator Ford. He took the Fuel Assistance Act, too, and took that money out which is not shown in here. Am I correct on that?

The Chairman. I don't believe so.

Senator Ford. If I am adding up here, you have got $136 million. If we accept your bill, you have cut $136 million out.

The Chairman. $136 million.

Senator Ford. That is everything you have taken out. I am getting some $500-odd million over here.

Mr. Tauke. The major difference is that in the Fuel Assistance Act, 15 percent of that money may be used for weatherization. We take that money and/or cut out that portion of the Fuel Assistance Act and put that money in the block grant; $200 million of the $280 million is possible there.

Senator Ford. The 15 percent is $280 million?

Mr. Tauke. Roughly.

Senator Ford. You have taken that out in your bill?

Mr. Tauke. I have. Senator McClure has not.

Senator Ford. How about us getting down to us? I would just like to know how much money is here. You can have your problems over there. I am a little bit confused. I wish I could find the dime on the floor.

Mr. Tauke. I thought in the Senate you looked for bigger change.

Senator Ford. On this side the way we are going if you find a dime you are going to be lucky.

I'm through. I don't know how much money the chairman's—the Budget Committee has been very quiet about this.

Can you tell us, Pete, how much money is being taken out of other programs?

Senator Domenici. No, I really can't.

Senator Ford. I thank the chairman.

The Chairman. Senator Hatfield?

Senator Hatfield. Mr. Chairman, in what context am I going to make my remarks?

The Chairman. In whatever context you would like to take.

STATEMENT OF HON. MARK O. HATFIELD, A U.S. SENATOR FROM THE STATE OF OREGON

Senator HATFIELD. First of all, I want to thank the chairman for calling the hearing. I think it is a very important subject that we have addressed in these bills that are before us both of yours, sir, and the one that Senator McClure has introduced and I would also refer to a bill hitting on this subject matter that Senator Weicker has introduced that I am cosponsoring.

Mr. Chairman, I have two concerns that are raised by this type of legislation at this time. I would only comment briefly at this moment, but it seems to me that we must reorganize these conservation programs. I think that is imperative, but I also think in light of the President's recommendation or announcement that he plans on termination of the Department of Energy, I really feel the committee should defer any action on repeal legislation until such time that it can be considered in relation to the future of programs now under the responsibility of the Energy Department which I assume will be some time in the authorization process next year.

Now I distinguish between repeal and reorganization. I am not suggesting that we limit our activity at this time in any way in the effort to reorganize. I had a concern over the concept of block grant funding. I think we have to also maintain very careful balance between giving the States more flexibility but certainly not relinguish any Federal accountability in terms of the use of public funds, and that is close calling for a very delicate balancing act.

I also think that in any case, the States must assume more responsibility, both administratively and financially, and I think in both bills here, at least the ones on the Senate side, you do call for the State contributions, matching moneys and so forth which I think is very sound, but I merely wanted to make those brief remarks because I do think that we are required to take a look at the President's proposal for the termination of the Department of Energy, and then in light of that to fit these pieces in, and I think any way in which we repeal before we have a full program would be very difficult as well as perhaps a bit premature.

I want to thank the chairman.

The CHAIRMAN. Senator, I think it should be noted that a great deal of that change of administration and reorganization of the existing categorical programs is contained in the bill—S. 1166—introduced by Senator Weicker and yourself. Certainly that is the direction that we want to look at as well as whether or not there will be reason to substitute for some of those programs and weatherization.

I think the colloquy that occurred just a few minutes ago with Senator Ford also kind of underscores the fact that over the last several years there has been a number of programs that have been passed by the Congress and that it is very difficult for anyone to keep close track of the interrelationships of all of those programs.

I would commend both you and Senator Weicker for having attempted to provide some rational administrative change for the overlapping and sometimes duplicative programs that could very well be administered more efficiently than they are under several separate programs that have been enacted in the past.

Thank you very much, Congressman. We appreciate your leadership and your effort in this field.

Mr. TAUKE. Thank you, Mr. Chairman.

The CHAIRMAN. Our next witness is Hon. W. Kenneth Davis, Deputy Secretary, Department of Energy, accompanied by Frank D. DeGeorge, Principal Deputy Assistant Secretary for Conservation and Renewable Energy.

Welcome before the committee, Mr. Secretary.

STATEMENT OF W. KENNETH DAVIS, DEPUTY SECRETARY, DEPARTMENT OF ENERGY, ACCOMPANIED BY FRANK D. DeGEORGE, PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY

Mr. DAVIS. Thank you, Mr. Chairman, members of the Committee on Energy and Natural Resources. I would like to thank you for the opportunity to appear before you today to discuss S. 1544, the State and Local Energy Block Grant Act of 1981.

S. 1544 is the administration's preferred version of the energy block grant legislation. As you have noted, I am accompanied today by Frank DeGeorge, the Deputy Assistant Secretary for Conservation and Renewable Energy.

The concept of categorical Federal grants for various energy conservation activities originated in a period of rapidly increasing dependence on foreign supplies of energy, primarily crude oil, and rapidly increasing prices for these foreign supplies.

The increasing dependence on foreign oil was to a large extent induced by Federal policies which created massive disincentives to the production and use of domestic sources of energy. This dependency increased our vulnerability to arbitrary price increases by foreign oil producers.

The Federal Government has, therefore, helped to create the very problem that it was attempting to alleviate through energy conservation grants.

The policy of this administration is to remove Federal disincentives to the production and use of domestic sources of energy and to encourage conservation of all energy sources. Effects of this policy are already apparent. Importation of foreign oil is declining, and the prices of foreign oil have stabilized and in some instance have actually been lowered. Efforts to produce domestic energy are greater now than ever before. At the same time, free market forces are inspiring cost-effective conservation measures and the substitution of economically viable alternate sources of energy.

Under these circumstances, the administration is disinclined to embark upon any undue intrusions into this increasingly productive energy realm.

However, we are in agreement with the premises upon which this bill is based. In particular, the public sector has a valid and important role in facilitating and where necessary supplementing private energy conservation initiatives, especially in assisting low-income persons to adjust to higher energy costs.

Moreover, we agree that the existing energy conservation grant programs include a myriad of unnecessary, expensive, and duplicative Federal requirements which have proven inefficient to administer, and therefore wasteful of both State and Federal resources.

This bill has the potential for alleviating these burdensome requirements and for providing States with both the necessary resources and the flexibility to meet their needs.

Indeed the bill responds to many of the concerns the Department of Energy has had with regard to providing assistance to the States. While we have taken whatever administrative steps we could to coordinate the existing categorical programs, this proposed legislation removes most of the previously mandated Federal intrusion. The provision in the proposed legislation for reporting on an as needed basis removes much of the paperwork burden of the present categorical grants.

The bill incorporates what is to us an important principle, that of allowing States to allocate energy funds to the areas of greatest need.

Finally, as you know, the President has announced that he will submit to the Congress in the near future a proposal to dismantle the Department of Energy. Therefore, should S. 1544 be enacted, I have no doubt that provision would be made for its implementation in an appropriate executive agency.

Mr. Chairman, thank you again for providing us with this opportunity to express our views on this important matter, and we would be very pleased to respond to your questions.

The CHAIRMAN. Thank you very much, Mr. Secretary. I guess it is no secret to anyone that there is some confusion surrounding the proposals that are emanating from the administration with respect to the dismantling of the Department of Energy.

Certainly the President made no secret of his desire to do that when he was campaigning. Those statements were made a number of times throughout the campaign that this was one Department that could be abolished. We are well into this year, and we now have a new proposal couched in budgetary terms, not in Government organizational terms, and hence some doubt about what is intended.

I have read not only the President's speech which dealt in general terms with the proposal, but some of the supporting material that was submitted along with it which indicated potential savings of $1½ billion a year by that action. Now we will be listening carefully for the supporting data that indicates that those savings can be made, but my impression first, and it is a considered reaction, but nevertheless a first reaction to that proposal is that there is no way that you can get $1½ billion savings in administrative costs.

Those savings occur because of programmatic changes if indeed those savings occur, and therefore there is implied without being stated a determination for some programmatic changes. As you know, I also serve as a member of the Appropriations Committee and am chairman of the Interior Appropriations Subcommittee. The subcommittee took certain actions that were at variance with the budget requests of the administration. When the time for appeal of that action came up for comment from the administration with respect to actions taken in that subcommittee, we got a list of things that were different from the budget request which didn't sound like original thinking, but it sounded like a stubborn repetition of the administration's original positions.

If I have to take that continuum from budget requests to comment on appropriations actions to $1½ billion dollars of savings in the Department of Energy, then I would assume that what I would see would be a continuation of appropriations levels suggested by the administration in the budget requests together with whatever we can see as likely outcomes of a further 12-percent reduction across the board. I would assume from that that if the administration might be looking very directly at programs such as these to get $1½ billion in savings with very very minimal savings in administrative overhead, it would seem to me we might be looking at some very large reductions in programs such as this. I know that the 1983 budget hasn't been put together yet, and I know the question I am about to ask you you will probably find impossible to respond to in any great detail, but can you give us a preview of coming attractions?

Mr. DAVIS. Senator, I appreciate your question and the comments that you have made, and certainly understand them. The budget, of course, has not been submitted for 1983, and there are some plans and studies underway as to what to do with the 1982 budget, as has been well reported.

I think insofar as it relates to this particular subject there are really three things I would say. First of all, I think that we support in principle the approach that is outlined in this legislation, the consolidation and simplification of the energy block grants to the States, and I think that is quite clear.

Second, I think, as you have pointed out, that we think that this might have to be administered by some successor agency or combined with some of the HHS or HUD block grants along the same lines.

Third, although it is clear in this legislation that you have provided an authorization of $200 million, it is not clear at this particular time whether if it were passed that we would ask for appropriations and if we did, to what extent we would be asking for them, and literally we simply don't know at the moment.

The CHAIRMAN. Mr. Secretary, there are perhaps two or three or perhaps more reasons than that for any kind of Federal assistance programs in the areas outlined in the underlying legislation, as well as in these block grants. One is an energy purpose, a purpose that is dealt with as a part of national policy—how do we reduce energy consumption? How do we provide greater efficiency in energy use? Those are energy program purposes that are related to our national dependence upon imported oil, the distortion of domestic and foreign policy as occasioned by our dependence upon large quantities of energy from a handful of nations with the attendant economic and political leverage that that gives them, the balance-of-payments problems that are associated with the concern, and I don't believe that the President would intend by the abolition of the Department of Energy to indicate that we are less concerned about the energy crisis that confronts this country, although there will be some people who read it that way.

The second very obvious purpose of some of these programs is to alleviate the hardship thrust upon vulnerable segments of our society because of rapid and dramatic increase in the cost of energy. The former certainly fits within an energy program administered by a Department of Energy if there is one.

It can be argued, and I have argued, that this program is a different kind of a program, not necessarily associated with nor directly related to the question of an energy policy but more appropriately associated with those functions within HHS or HUD. If we were able to make a rational distinction between the purposes of the two programs, and we have a Department of Energy, then we might divide them. If we don't have a Department of Energy, then we can't make a rational distinction any longer—perhaps we haven't in the past either—but could you comment as to the division between the purposes of such programs and where they might fall within the other departments within the executive branch, other than a general statement that they might fall in HUD or HHS?

Mr. Davis. Well, I think first of all, Senator, that I don't think anybody should read into the President's statements any lessening of concern about our energy situation both as to the fact of our domestic policies and programs, and as it affects our international relationships. In fact, I think we have developed perhaps a new feeling for how important and how crucial these international relationships are and the fact that we can't escape them so that the problem that is being studied is a question of what is the appropriate structure, the appropriate organization and functions by which that program can be carried out in the best possible and most efficient way.

It is not, I am sure, intended to indicate in any way a lessening of our concern about the energy problems. Insofar as the domestic assistance programs, there is clearly I think a view that these are best administered by the States and administered with a minimum of direction and control, although with the necessary degree of accounting.

These programs are in fact quite different than the broad energy program. They could be administered by DOE or some other agency. They are simply the allocation of funds to the States and as specified in your legislation, the States have very broad latitude as to the purposes for which they would use those funds, and we think again that the States and indeed the local governments are in the best position not only to ascertain what the needs are, but also to administer the programs.

Now these are quite different, and I'm afraid I can't be much more specific about what the organization and administration might best be for those.

The Chairman. Senator Hatfield?

Senator Hatfield. Thank you, Mr. Chairman. Mr. Davis, on page 2 of your testimony you refer to the fact that "* * * existing energy conservation grant programs include a myriad of unnecessary, expensive, and duplicative Federal requirements which have proven inefficient to administer and, therefore, wasteful of both State and Federal resources."

I would not disagree with you on that particular observation, but my question is, is rather than necessarily repealing the statutes in order to correct this problem, does the Department of Energy have a list or analysis of such specific provisions of law which are most burdensome? I would like to have an analysis of those laws, identification of them or those programs that are the most onerous provisions that we are discussing this morning, and I have not seen such a list or identification from the Department.

Do you have that kind of list?

Mr. DAVIS. Senator, I don't believe we have a list in that form, but I think we can probably assemble one.

Senator HATFIELD. Could you provide one for the committee?

Mr. DAVIS. I will be happy to.

[Subsequent to the hearing the Department of Energy supplied the following:]

The primary message of this statement is that the multiple sets of legislation and regulations, taken in their totality, represent an inherently inefficient and thus burdensome body of Federal requirements. However, the following list of provisions delineates specific legislative citations which have proved to be the most burdensome and expensive to administer, thereby constituting impediments to the accomplishment of the broader objectives of the statutes themselves:

Applicable Section, Title and Public Law	Explanation and Description of Burden
Section 413(b)(3) Energy Conservation and Production Act, as amended (ECPA), Pub.Law. 94-385	Requires States to use DOE energy audit procedures in lieu of procedures used by States and utilities for other energy conservation programs. Results in duplication of energy audits and increased training requirements for States.
Section 508, National Energy Extension Service Act (NEESA), Pub.Law. 95-39	Federal government-wide coordination and management of federal energy education, extension, and information activities is accomplished through existing Federal budget and management reviews and therefore make this report duplicative.
Section 506(f), National Energy Extension Service Act (NEESA), Pub.Law. 95-39	Imposing plans on States which do not submit them is excessive Federal interference with State authority. If a State does not wish to submit a plan, the Federal government should not try to impose one.
Sections 362(c), 367(b)(1), Energy Policy and Conservation Act as amended, (EPCA), Pub.Law. 94-163	The mandatory "program measure" requirements of EPCA as amended, should be deleted. The States are implementing these program measures to the degree they are feasible and desirable. The States should not be required to implement mandatory measures which they feel will not generate significant energy savings in that particular State.
Section 363(b)(3)(A), Energy Policy and Conservation Act (EPCA), Pub.Law. 94-163	Linking the State share of Federal assistance to energy savings has undermined effective energy conservation planning in the States. It encourages States to exaggerate their claims to energy savings, rather than basing their State plans on what they can realistically achieve.

In addition, the multiplicity of programs and program applications requires multiple responses to non-discrimination, environmental, health, welfare and safety requirements, as well as, national resource conservation and administrative and procedural requirements. A block grant approach would minimize the duplication of effort that is presently required.

Senator **Hatfield**. Thank you. Second, on page 2, also the second observation is you say at the bottom, "Therefore, should S. 1544 be enacted, I have no doubt that provision would be made for its implementation in an appropriate executive agency."

It is sort of a follow-up of the chairman's questions, but do you have any kind of commitment from OMB or the White House or from any other such authority as to the fact that you say here, that these would be implemented?

Mr. **Davis**. Not specifically, under present circumstances.

Senator **Hatfield**. So this is merely then the thought or the hope or the expectation of the Department of Energy?

Mr. **Davis**. I believe I would have to say that is correct.

Senator **Hatfield**. Thank you very much, Mr. Chairman.

The **Chairman**. Senator Weicker.

Senator **Weicker**. I am a little concerned over the fact that having failed to adopt an energy policy, I am now talking about Federal Government energy policy, there hasn't been an energy policy for at least a 5 to 6-year period, how do you expect 50 States to go ahead and create an energy policy?

It seems to me we are confronted with a national problem. We have failed to resolve a national problem by national action. We have failed there. We now go ahead and figure that 50 different governmental entities can do what one has never done, and maybe you would like to address this question?

Mr. **Davis**. Well, Senator, I guess it is my feeling there is really no such thing as a national energy policy.

Senator **Weicker**. There isn't or there shouldn't be?

Mr. **Davis**. I don't think you can describe a national energy policy in a very concise way. I think we can, as we have tried to do, set forth what we think are some of the objectives that the country should be striving for, such as trying to reduce our dependence on foreign imports and to increase the production of domestic supplies of energy, particularly coal and nuclear, but we have not tried to provide a plan. I think that was one of the essential things that we sought to point out in the national energy policy plan. We didn't feel the Federal Government should be establishing a plan and then striving to tell everybody how to reach it, but to set what we thought were important national objectives and try to ascertain those things that the Government might be doing which would prevent us from reaching those objectives, and try to implement such a way of going at it.

That is sort of a broad picture. I think when you get down to the State level, each of the States have their own individual problems. I think they are in the best position to set their own goals and objectives and determine how they want to reach them. We have a broad policy with respect to energy, and I think the States can develop their own. I participated in studies over the years which have sought to define a national energy plan, and my conviction is there is no way you can really put one down on a piece of paper and get agreement on it.

It is really a collection of objectives and goals and individual plans, and the States I think can participate in that process.

Senator **Weicker**. I can certainly tell you that we had a national threat. The action of OPEC was directed against this Nation, not against 50 States. The results of those actions were to devastate the national economy, to devastate the dollars, to devastate the balance of payments. I mean I can't believe what I am hearing, that all of a sudden we shouldn't have even a national policy.

There is probably no greater threat with the exception of various armed conflicts that has ever been directed toward this Nation than that which commenced in 1974, 1975 with the Arab oil embargo. We all flopped and flipped all over the place, and they never really adequately responded to it. Believe me, I think we will serve this Nation if our memories are that short. I can't believe it. You are saying now we will just sort of do our thing and have some general objectives in mind.

Do you think there is anything general about the OPEC cartel?

Mr. DAVIS. No. I am quite aware of that, sir. What I am trying to say is that we are setting or trying to set specific goals and objectives. For example, we have one clear objective which is to try to fill the strategic petroleum reserve. That is a specific action that is underway.

Senator WEICKER. We haven't done very well at that.

Mr. DAVIS. We have been adding an average of approximately 400,000 barrels a day over the last several months.

Senator WEICKER. We are far short of what we originally set out to do in that area.

Mr. DAVIS. Yes, sir, and we are trying to catch up on that.

Senator WEICKER. That is one.

Mr. DAVIS. We are trying to take such steps as we can to stimulate the production of oil, coal, and gas in this country.

Senator WEICKER. Who is "we"? What are "we"? Who is "we"?

Mr. DAVIS. "We", I think, is the country collectively, industry, private sector, and the Government. I think our role is to try to remove where we can the roadblocks, the regulations and other impediments which prevent the industry from being able to go ahead and do the things they would like to do.

Senator WEICKER. Well, as one who certainly consistently advocated decontrol and deregulation and still does, I think there may be a few other things that remain to be done in that regard.

Conservation, what about the conservation aspect of this nonenergy policy, this general collection of thoughts here? How does that apply itself, the conservation?

Mr. DAVIS. Probably the largest driving force for conservation is an economic one, and I believe that most of the economists will attribute the drop in our consumption and importation of oil to the increased price of energy. The economists have told us for a long time that there is a certain elasticity of consumption versus price, and I think we have seen that demonstrated.

Senator WEICKER. If we are going to do that, don't you think there should be some compensating mechanisms in place for energy which in so many respects is an absolute necessity of life in order to make some mechanism in place for those who in effect are rationed by price? What are we supposed to do with the poorest elements of our society under this system?

Mr. DAVIS. There are provisions in the HHS and HUD programs for assistance to low-income families.

Senator WEICKER. Not "we" now; that initiative comes from the Congress. The administration has had no initiative here. I don't know. I have been trying daily to preserve the low-income energy assistance with no help from the administration on that score at all.

Mr. DAVIS. I can't speak for the details of that at all, but I think those programs are in existence in those departments.

Senator WEICKER. I will conclude my questions, Mr. Chairman, by simply saying this, that I feel our vulnerability is as great this year as it was last year as it was 5 years ago. The threat is just as formidable and just as serious today as it has been in the past, and to go back to in effect what was the status quo—at least in the past 5 years we have tried to do something. We haven't done anything but we have been trying. Now we are even going to stop trying and figure let the old marketplace take care of it. Let everybody do their thing on 50 individual bases out there. Some will. Some won't. God help the United States of America if we are confronted again with the same kind of threats that have been the norm every year for the past several years.

This is no energy policy at all. It is just trying to talk yourself into the fact that something has changed and nothing has. It is like saying, like our former colleague Senator Aiken, let's just say we have won the war and get out.

Mr. DAVIS. Well, Senator, I think that I would like to be very clear that none of us have lost our apprehension about possible future shortfalls of oil imports into this country. I think where we may differ is in the way in which we think it is best to try to respond to that.

Senator WEICKER. Now let me make very clear to you that as an advocate and the only one out of the New England States for decontrol and deregulation for many years, as much as I think the private sector can do a lot, the private sector certainly did not place us in the position where we could respond to OPEC. The States by their policies certainly had not put us in the position where we could respond to OPEC, so nobody is talking about the private sector or faith in the private sector or local autonomy of the States. That is just totally and has been proven distorted, to be a totally inadequate response to the changed world, the threat posed by that world to the United States.

God! If we are not going to learn then we deserve what is coming to us. Some of our problems might be these unbalanced budgets economically, but still we are still in the backwash of what OPEC did to the United States economically. That probably has as much to do with the uncertainty, the economic uncertainty today as the unbalanced budget.

Mr. DAVIS. Well, Senator, I would have to point out that since the decontrol of oil prices and allocations, our imports have dropped very sharply. We are much less at the mercy of the OPEC countries than we were before we decontrolled the price of oil. We have had much greater exploration and development going on in this country, and I think that that kind of an exercise of the free market has in fact substantially reduced our vulnerability.

Senator WEICKER. Well, I hope you're right, but I know the best time to go ahead and plan is when you don't have the sword hanging over your neck, and I speak for my State of Connecticut. The State of Connecticut for years has done nothing to help itself, absolutely nothing, except to stand up there and squawk every time the price goes up, but every time anybody wanted to put a refinery—no, we didn't want a refinery; wanted subsidized low price for fuel, right on down the checklist we would squawk, so believe me, if Connecticut is any example, and then as I see the other States have not done anything, I don't think that a national energy policy is ever going to be defined by placing the solution or the opportunity, therefore, in the hands of 50 different States. That is not an energy policy.

Mr. DAVIS. We are not, sir, planning to have them develop the national energy policy. We are planning to allow them to use these funds if they are to be appropriated to develop their own local plans as to how to deal with their problems.

Senator WEICKER. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator. I might indicate that the reason for the introduction of the legislation, and the request that I made for the drafting service, springs from the uncertainty that has come from the suggestion that some of these programs, or the conditions which they are designed to deal with, would be covered by certain HUD or HHS programs without any definition of what they would be; and we are attempting to find out what the proposals would be and what we might do to deal with them through the balance of 1982 and what we can anticipate for 1983.

When I introduced this legislation I also included as a part of my remarks on the floor a letter which I had received from Dave Stockman, the Director of OMB; he outlined the administration's position with respect to all of the categorical energy programs and concluded with this statement, and I quote from his letter of July 17.

> Under these circumstances, in a spirit of compromise, the administration would not oppose legislation authorizing State and local energy block grants for energy conservation and low-income weatherization activities which would repeal and replace all the existing categorical conservation grant programs, including the residential conservation service, and for which funding would be authorized at a level not in excess of $200 million per year.

We are trying to close in on where the administration is coming from and where the Congress might reach accommodation with the administration on the kinds and types of programs and the level of funding that we might be able to expect in terms of authorization and in terms of the appropriated levels for fiscal year 1983.

We appreciate your participation.

Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman. Let me ask you, Mr. Chairman, whether the Department would be the appropriate vehicle in your opinion or whether we could get part of this from them and supplement it from other places. I think we have to know in some succinct manner and form all of the programs of a funded nature, that is, grants, that are directed at energy conservation and weatherization.

We have to take a look at those in the context of how many exist. Some are not even within the Department of Energy. We are not even totally familiar in terms of as an authorizing committee to the level of funding and the like, and then whether some are matched, whether there is some flexibility out there in the States already. I think we ought to have all that in front of us at the earliest possible time. I hope that that is done with the assistance of our staff, or the Appropriations Committee staff, or whatever.

Would you not agree, Mr. Chairman, that we have to have that kind of thing?

The CHAIRMAN. Senator, certainly that is correct. That is one of the reasons that there was a provision added in the Energy Extension Service legislation requiring precisely that kind of a report which I am sure can be made available to this committee and to the individual members that have an interest in it.

[The Department of Energy supplied the following:]

STATE AND LOCAL PROGRAMS—ACTUAL PROGRAM LEVEL ENERGY CONSERVATION/DOE

	Fiscal year 1982		1981	1980
	Senate bill	House bill		
Emergency energy conservation program	$2,000,000	$2,000,000	$2,000,000	$1,500,000
Energy policy and conservation grants	29,000,000		37,800,000	37,800,000
Energy extension service	10,000,000	15,000,000	20,000,000	25,000,000
Energy conservation and production grants	6,000,000		10,000,000	10,000,000
Schools and hospitals	50,000,000	100,000,000	150,000,000	143,750,000
Weatherization	112,500,000	150,000,000	175,000,000	198,950,000
Program direction	7,000,000	7,465,000	9,862,000	6,836,000
Total	216,500,000	274,465,000	404,662,000	423,836,000

DEPARTMENT OF ENERGY
Summary of Programs for Possible Inclusion in S. 1544

(Budget Authority in thousands)

Program	Legislation and Date	FY 1981 Revised Approp.	FY 1982 March Request	FY 1982 October Request
Institutional Buildings:				
Schools & Hospitals Grants	National Energy Conservation Policy Act (NECPA), P.L. 95-619, Sections 301-304 of Title III, November 9, 1978	$150,000	$100,000	$ 87,022
Other Local Government Buildings	National Energy Conservation Policy Act (NECPA), P.L. 95-619, Sections 310-312 of Title III, November 9, 1978	0	0	0
Weatherization Assistance	Energy Conservation and Production Act (ECPA), P.L. 94-385, Part A of Title IV, August 14, 1976; Extended by NECPA, P.L. 95-619, Part 2, Title III, Section 231, November 9, 1978; and amended by the Energy Security Act, P.L. 96-294, 1979	175,000	0	0
State Energy Conservation (Base)	Energy Policy and Conservation Act (EPCA) P.L. 94-163, Title III, December 22, 1975	37,800	0	0
State Energy Conservation (Supplemental)	Energy Conservation and Production Act, P.L. 94-385, Title IV, Part B, August 14, 1976	10,000	0	0
Energy Extension Service	National Energy Extension Service Act, P.L. 95-39, Title V, June 3, 1977	20,000	0	0
Emergency Energy Conservation	Emergency Energy Conservation Policy Act, P.L. 96-102, Title II, Part A, November 5, 1979	2,000	2,000	2,000
Transportation: State/Local Technical Assistance	Energy Policy and Conservation Act (EPCA), P.L. 94-163, December 22, 1975	150	0	0

DEPARTMENT OF ENERGY
Summary of Programs for Possible Inclusion in S. 1544

(Budget Authority in thousands)

Program	Legislation and Date	FY 1981 Revised Approp.	FY 1982 March Request	FY 1982 October Request
Residential Conservation Service	National Energy Conservation Policy Act (NECPA), P.L. 95-619 Title III, Part I, November 9, 1978; amended by Energy Security Act, June 30, 1980	$ 5,150	$ 0	$ 0
Commercial and Apartment Conservation Service	NECPA Title VII	1/	0	0
Residential Energy Efficiency	NECPA Title II, Part 5	1/	0	0
Energy Auditor Training and Certification Grants	Energy Security Act, P.L. 96-294, Title V, Subtitle F, June 30, 1980	0	0	0
Fuel Oil Conservation Marketing	Energy Policy and Conservation Act (EPCA), P.L. 94-163, December 22, 1975	1,620	0	0
Energy Impact Assistance	Powerplant and Industrial Fuel Use Act of 1978, P.L. 95-620	10,000	0	0
Comprehensive Community Energy Management	Federal Non-Nuclear Energy Research and Development Act of 1974, P.L. 95-91	7,800	0	0
District Heating	Do	2,800	2,000	1,730
Energy Conservation Standards for New Buildings	Energy Conservation and Production Act (ECPA), P.L. 94-385, August 14, 1976	6,705	0	0

[1/] Amount not specificed in the appropriations bill or the original or revised Administration request. FY 1981 funds were expended on the development and issuance of proposed regulations for the programs, but no final regulations had been issued as of the end of FY 1981.

Senator DOMENICI. Just one observation on Senator Weicker's comments and then I have one question for the Secretary.

I don't agree with Senator Weicker at all that an energy policy of this country, national in scope, either exists or doesn't exist based upon an energy conservation program of the type we had in the last year and a half or so on weatherization.

I think those are precisely what you described, Mr. Chairman. They are national efforts to help those that need help in terms of getting through the crisis and aimed at conserving. Certainly that is not a national energy policy. It might be some portion of it, and we certainly have to decide to what extent you want to continue that kind of effort, or that we can, but I want to follow up, I think our chairman was quite gracious in describing to you the dilemma that I see, and I see two very serious ones.

The proposed dismantling of the Department of Energy in terms of just being able to say we got rid of something, I want to say from my standpoint means little or nothing. What I am interested in is how you propose to save money and accomplish the nationally mandated, that is, congressionally mandated functions within the Department.

I would say that I, too, have great doubt that you can save $1½ billion in any dismantling of the Department of Energy. It would appear to me that we certainly as soon as possible ought to know what programs you intend to curtail, and eliminate. I can't believe you can save a billion and a half without some aspect of your curtailment and some aspect in there of getting rid of some programs, and that leads to this.

I see no good purpose served in us going through an exercise in block grants if it is not the intention of the administration to recommend that some level of funding be continued for these efforts wherever they are. My last observation is I hope that when you do that that we don't get one of these where we cut out because we say HUD or HSS will do it and they say the same thing. They are cutting them out because DOE is doing them. I would ask you to do everything you can to make sure we know where the thrust is and not have us cutting one program with the idea that another continues and find that that department or agency is cutting theirs also. So in a nutshell, I think we ought to know as soon as possible how much money the administration intends to ask for in these areas, whether they are under the categoricals or whether they are under the block.

I don't think any real purpose is served in blocking and then finding that there is going to be no recommendation for funding.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator, and I might just comment that as I said earlier, there may be a national energy policy question with respect to energy planning.

There is also a question of alleviating the impact of energy costs. Certainly a weatherization plan deals with both reducing the energy consumption of the Nation and also dealing with the impact money to different people so not all the programs fall neatly into one category or other.

Thank you very much, Mr. Secretary.

Senator Bradley?

Senator **Bradley**. Thank you, Mr. Chairman. Mr. Davis, in your testimony on page 2 you say,

> In particular, the public sector has a valid and important role in facilitating and, where necessary, supplementing private energy conservation initiatives, especially in assisting low-income persons to adjust to higher energy costs.

How is that happening? How are you helping low-income persons adjust to higher energy costs?

Mr. **Davis**. Mr. DeGeorge knows the details of the program better than I.

Mr. **DeGeorge**. Mr. Bradley, the primary thrust is the availability of the——

Senator **Bradley**. Who is this speaking?

Mr. **DeGeorge**. Frank DeGeorge, Deputy Assistant Secretary for Conservation and Renewable Energy—the primary thrust, sir, is the block grant programs which have been requested in the emergency assistance side of the HHS which has the availability of up to 15 percent of the budget to be available for weatherization, plus the HUD block grants which I think total something over $4 billion which allow certain discretionary authority in the local communities to spend funds for various energy implementations.

Senator **Bradley**. So that you are doing this in the form of some form of existing block grant back to States, is that right?

Mr. **DeGeorge**. Yes, sir.

Senator **Bradley**. As you know, we are considering the Emergency Petroleum Allocation Act, and what we should do to replace or not replace that expiring authority, and the administration has recommended that we let the marketplace function.

I support that, and the chairman of the committee, and the committee generally has moved more toward price controls and allocations. In the proposal that I have offered that you have discussed at various hearings, there is a provision for doing specifically what you have stated here, which is recycling existing tax revenues from the windfall profits tax that will increase in the event of a disruption in the form of lower withholding rates, increased social security payments, and a block grant to Governors.

Now would you say that in concept, in concept, that block grant to Governors is virtually, it is somewhat similar to what you have stated here you are now doing?

The purpose of the block grant in my bill is to allow Governors to take initiatives that meet their own States' individual needs—fishermen in one place, maybe a heavier rural population in another place, maybe a heavier urban population, but to give them that flexibility.

Now is that consistent with what you have advocated?

Mr. **Davis**. Well, I think it is consistent with the provisions of this proposed legislation which gives the States great flexibility as to how they think it is best to spend the money in their State, whether it is emergency preparedness or weatherization or assistance to low-income families, and do it either themselves or by passing it to the local agencies. So, in concept it sounds very similar.

Senator **Bradley**. Do you have any fear that transferring this revenue back to the States might lead, or that the Governors of the

States themselves might be more susceptible to graft or corruption as was suggested in the committee last week by the chairman?

Mr. DAVIS. I have no reason to come to such a conclusion.

Senator BRADLEY. Then you feel fairly confident that all of the block grants that are proposed by the administration will lead to an efficient, honest administration of the programs, is that correct?

Mr. DAVIS. Well, I certainly hope so.

Senator BRADLEY. I do, too. I do, too. Let me again clear up, you don't care what this money is used for, is that right? This is a block grant back to the Governor and he has the authority to use it in any way he chooses, is that correct?

Mr. DAVIS. The proposed legislation which we are supporting would allow the States to use the money for any energy-related purposes. Some of those have been outlined in the legislation, but they are given as examples. There would have to be an auditing and a reporting back of what had been done, so that we would have adequate records of what the States had actually done with the money that was provided to them, but otherwise the concept as presented is a very straightforward one of a formula for allocation and decision by the States as to how to use the money with the basic restriction being that it be for energy-related assistance in one form or another.

Senator BRADLEY. Let's take my State, for example, which has suffered the repercussions of Three Mile Island. A large portion of our utility is affected by the costs of cleaning up Three Mile Island.

Would it be possible for the Governor to decide that he would like to subsidize the ratepayers of that utility simply by lowering their costs? He would have the flexibility to do that under this bill, wouldn't he?

Mr. DAVIS. I can't really comment on whether there might be some other kind of legal restrictions, but I think as far as this legislation is concerned, he would.

Senator BRADLEY. It would be possible, is that correct?

Mr. DAVIS. My own interpretation of the language is that that would seem to be one of the kinds of things that could be done, yes.

Senator BRADLEY. I see. Good. Would it be possible for the Governor of my State to decide that the probability of offshore oil drilling is quite significant and that in an attempt to encourage companies to again move into the Outer Continental Shelf, that maybe the State would join as a participant? Is that possible under this bill, to use these moneys for that?

Mr. DAVIS. Without the benefit of legal counsel I guess I would say I suppose so, although I think——

Senator BRADLEY. It would be possible?

Mr. DAVIS. I would think so. I think I would have to observe that there might be a few other possibilities, but the amount of money involved, as compared with the expenses of the kind of things that you are describing, it would in fact be quite possible. I have a question whether that would be determined to be the best use of the funds.

Senator BRADLEY. But that is not, of course, what we are doing at the Federal level.

Mr. DAVIS. That is not what we are doing.

Senator BRADLEY. We are not deciding whether the State is using the funds in the wisest manner. We are simply sending them money to use them as they see fit, and if they saw fit to drill for oil or subsidize ratepayers, they could do that, couldn't they?

Mr. DAVIS. Yes. Again, going back to your question, I presume they would try to make the best possible use of the money. We are not telling them what that should be.

Senator BRADLEY. And you feel there is no need to have a reporting of how they use the money, is that correct?

Mr. DAVIS. There is an auditing function and reporting.

Senator BRADLEY. It is a reporting to whom?

Mr. DAVIS. Reporting to the Department of Energy.

Senator BRADLEY. And the Department of Energy then determines if the use was for energy purposes?

Mr. DAVIS. I think that would be more of the auditing function in the sense that there could be a determination as to whether or not it had been used as intended for energy-related purposes. I would regard that more as the auditing part.

Senator BRADLEY. Now how do you determine what are energy-related purposes? I mean, for example, another possibility, could the State use these moneys to build a new building with new energy-efficient methods, a kind of model departmental building to show that passive solar energy works? Would that be possible under this block grant program?

Mr. DAVIS. Oh, I presume so.

Senator BRADLEY. It would be possible so that you could use the block grant moneys for construction projects?

Mr. DAVIS. I don't see any prohibition against it providing it was for energy purposes.

Senator BRADLEY. And the Department of Energy, of course, would not rule that such a building was not energy related, is that correct, just as they would approve the subsidizing of the ratepayers?

Mr. DAVIS. I think you are raising some hypothetical examples which I don't know that I could prejudge. I am simply giving you my impression based on looking at the proposed legislation. It might well be that there might be rules or things develop which might further attempt to clarify just what was energy related and what was not.

Senator BRADLEY. They are not developed now, though?

Mr. DAVIS. Not in terms of this legislation, no.

Senator BRADLEY. When would they be developed?

Mr. DAVIS. They would have to be developed after it was passed I assume.

Senator BRADLEY. Pardon?

Mr. DAVIS. After it was passed and became a law.

Senator BRADLEY. So that we would be approving money, then it would be determined how it would be spent after we had already approved the money? Is that what you are just saying?

Mr. DAVIS. No.

Senator BRADLEY. Certain rules you said. We would approve the money under the condition or the idea this is a block grant for energy uses, and we specify the three hypotheticals here, but you then have said that there would be further rules to determine what could be spent and what couldn't be spent?

Mr. DAVIS. No. What I was attempting to say was that in cases of this sort, it is not particularly clear to me just in trying to respond to a hypothetical question as to exactly whether or not they might fall under the definition of energy related. It might be decided, and I can't pre-judge that there might need to be some further definition other than that that is given in the proposed legislation as to what energy related meant in the context of the legislation.

I am simply speculating at this point because I don't know what the actual outcome would be.

Senator BRADLEY. Do you think that the formula as written, 75 percent on the basis of population and 25 percent among all States equally, is an appropriate formula?

Mr. DAVIS. Well, all I can say is that it appears reasonable for me. It seems to meet the objectives of being a formula and yet providing some assurance to the smaller States that they would get some of the money. You could have almost an infinite number of formulas. It strikes me as being a fairly reasonable one.

Senator BRADLEY. Do you have any questions as to whether there should not be some provision on the basis of degree days, cold days versus warm days? Do you feel that the warmer parts of the country should have the same allocation as the colder parts of the country?

Mr. DAVIS. Well, I think this would depend on whether, regardless of being somehow aimed only at heating and cooling——

Senator BRADLEY. Pardon?

Mr. DAVIS. Well, I think what this legislation says is that the States may use the money for a great variety of purposes. Weatherization and assistance to low-income people are only part of what it is presumably aimed at. I can't quite visualize a situation where for this kind of legislation you would make it dependent in terms of allocation on the weather itself. That is not the only energy problem that we have in this country.

Senator BRADLEY. I mean then could this program be used to air-condition the home of the Governor, the official residence of the Governor?

Mr. DAVIS. I have some doubts about that, sir, but I don't know.

Senator BRADLEY. Pardon?

Mr. DAVIS. I say I have some doubts about that.

Senator BRADLEY. You doubt that?

Mr. DAVIS. If you want my opinion, yes. I do not think that would be appropriate.

Senator BRADLEY. Could it be used to air-condition the State prison?

Mr. DAVIS. I have no idea.

Senator BRADLEY. It is a block grant.

Mr. DAVIS. A block grant.

Senator BRADLEY. What would prevent it from being used to air condition the State prison?

Mr. DAVIS. I assume the State would set up some kind of administrative program. If it is energy related I guess if they decided that was the best use of the money and thought they could stand the heat of doing it, maybe that's right.

Senator **Bradley**. You feel no need to set any kind of guidelines here?

Mr. **Davis**. I am simply responding to your question in the sense that the legislation itself as proposed does not set forth standard guidelines. I have said that if after examining the legislation we felt some were required that we probably would attempt to develop some at that time. We have not attempted to do so now.

This is simply a piece of legislation that we are being asked to comment on, and if upon examination of these kinds of questions we felt it necessary, I am sure we would develop such guidelines.

Senator **Bradley**. Could you state as succinctly as possible why you think we even need a block grant program? Why do we even need one?

Mr. **Davis**. I believe our position is that if there are to be block grant programs in the first place, this appears to us to be the most reasonable way to do it. There does seem to be considerable support for the idea that some of the Federal funds should be transferred back to the States for them to administer in terms of trying to take care of some of these social needs.

Senator **Bradley**. To take care of what?

Mr. **Davis**. Social needs.

Senator **Bradley**. This energy block grant program is to take care of social needs?

Mr. **Davis**. To a certain extent, yes, sir; that is what the low-income assistance and weatherization I believe is aimed at, yes, sir.

Senator **Bradley**. I didn't get, Mr. Davis, from your comments as to whether you were actually going along with the idea of a block grant or whether you affirmatively believe that a block grant in energy is very important.

Mr. **Davis**. We are supporting the proposed legislation, and this bill provides for block grants in the energy field.

Senator **Bradley**. Again, could you say why are you supporting it? It seems somewhat contradictory to allowing the marketplace to function and opposing the recycling of tax dollars back to individuals to give them the ability to pay for their higher prices and opposing the transfer of increased social security payments back to the individuals or block grants to Governors. It seems if you are opposing those, why would you be supporting these?

Mr. **Davis**. I think we are supporting the block grants in this form.

Senator **Bradley**. But that is not the answer to the question. I know you are supporting block grants in these forms. What I am saying is why are you supporting block grants in these forms but not supporting block grants in the form that was proposed in the legislation to deal with the Emergency Petroleum Allocation Act? What is the difference conceptually?

Mr. **Davis**. I think we were basically opposed to the specific legislation to deal with the shortfalls which is a different situation than the continuing——

Senator **Bradley**. You are opposed to continuing the EPAA legislation in any form, I mean the proposed allocations and price controls?

Mr. **Davis**. Yes, sir, and I testified to this committee to that effect.

Senator **Bradley**. But you do support trying to provide low-income individuals, existing low-income persons help to adjust to higher energy costs?

Mr. **Davis**. Yes. I think that is quite a different situation. It is an on-going situation with respect to——

Senator **Bradley**. Fine. My question is what do you think is the most efficient way to assist low-income persons to adjust to higher energy costs? Putting money back in their pockets so they can pay higher prices that the market has brought in its function officially or sending block grants to States to have them do weatherization programs? Which do you think is the most efficient in achieving your stated goal of assisting low-income persons to adjust to higher energy costs?

Mr. **Davis**. We are trying to provide a flexible program without direction to the States through these block grants, so that they can undertake to do the things in their own area that they think is the most useful thing to do.

Senator **Bradley**. I know that, Mr. Davis.

Mr. **Davis**. Now you are contrasting that with specific legislation which would require that certain funds be used for that purpose and be used for it in the event of an overall shortfall.

Now I think, in my mind, those are two quite different things. I think it is not possible to compare them directly and you are asking me to make a specific comparison as to which I think is the most efficient way to do it.

I don't think they are comparable, and I believe that in supporting this limited granting of funds for flexible use by the States, or providing one form of assistance which can be utilized by the States on a continuing basis, not in the event of an emergency, I think that is quite different than what we were talking about in terms of the emergency legislation in the case of the shortfall.

Senator **Bradley**. But the stated purpose in both cases is assisting low-income persons to adjust to higher energy costs. Now that is your statement in your testimony.

Mr. **Davis**. That is one of the purposes, yes, sir.

Senator **Bradley**. Yes. One of the purposes, and the question is—I would like to do that, too, and the question is what is the most efficient way to do that? Is it by reducing taxes and increasing transfer payments and providing block grants to Governors to adjust to unusual circumstances, or is it by perpetuating an enormous bureaucracy, maybe not at the Federal level, but at the State level, to administer a myriad of programs that will not have regulations at the Federal level but will have at the State level, and as you have testified today, will have auditing functions, lodged in the Federal Government that establish their own guidelines? Which is the more efficient way to help low-income individuals adjust to higher energy costs?

Mr. **Davis**. I think you are talking about two different circumstances, and I don't think they are necessarily mutually exclusive.

Senator **Bradley**. Do you support both?

Mr. **Davis**. We do not support the use of recycling mechanisms that were discussed in connection with EPAA because we do not support the need for special legislation in case of a shortfall.

Senator **Bradley**. So that in case of a shortfall what we would have for these low-income persons is what, to adjust to the higher energy costs?

Mr. **Davis**. Presumably we would have these same on-going programs.

Senator **Bradley**. So in other words, here is a disruption of Saudi Arabian oil, prices go up from $30 a barrel to $75 a barrel, the administration is responsible. There is $200 million present all over the country for whatever you want to use it for—drilling oil, air-conditioning Governors' homes, air conditioning prisons, whatever you want to do. It is up to the Governor to determine how to cope with the higher energy prices, or what you are saying is part of the emergency preparedness.

You know, I strongly support many of the things you are doing. It is the strategic reserve, generally letting the market set prices in a disruption, but it is the low-income component here that is at issue, and as I hear what your plan is, your plan is to allow the Governors to set up their own emergency preparedness programs to deal with energy disparities, and is that what your program is? I think you just said that you continue the ongoing program.

Mr. **Davis**. The programs would be ongoing.

[A discussion was held off the record.]

Senator **Bradley**. I am prepared in a very short time to stop this line of questioning. I would hope that—I do have a number of other questions. I hope we could have another hearing on this bill. As you understand it, will that be possible?

Senator **Domenici** [presiding]. I really don't know, but I assume, based upon what the chairman said at the beginning of wanting to find out where all the various programs and levels of funding are and what their recommendation is budgetwise, and the reorganization department, that there would be more hearings than we have today.

That is just my assumption. I have not asked the chairman.

Senator **Bradley**. OK. Again, what is the administration's program to assist low-income persons to adjust to higher energy costs in the event of a disruption?

Mr. **Davis**. That is not the subject that I came up prepared to speak to. As we have testified earlier, we believe that in the case of a shortfall, that the marketplace will in fact allocate resources, and that the other programs are available and we stressed repeatedly here there is HHS and HUD programs, that there would be some assistance forthcoming plus those that can be provided by the State.

Senator **Bradley**. So that what you are saying is that the administration's low-income assistance for low-income persons to adjust to higher energy costs in a disruption is a continuation of a program that existed before the disruption so that you have made no extra effort whatsoever that reflects the increase in price that is due to that disruption?

Mr. **Davis**. Senator, we discussed this at considerable length in connection with the EPAA matter, and I think that we were quite clear that the position of the administration is we do not need specific legislation after the expiration of EPAA, and that we felt that the best way to deal with that situation was to let the market allocate those resources which were available and to let the existing programs and the State programs attempt to deal with the problem of those who are going to have special problems.

Now if that happens and I think the thing we tried to stress is that there is going to be a very serious problem for everybody, and that we felt and continue to feel that trying to manage that kind of a thing at the Federal level is simply counterproductive and that it has been demonstrated to be counterproductive.

Now we can review the whole situation on the EPAA legislation but that was basically our position and remains our position.

Senator **BRADLEY**. I couldn't agree with you more that it is fruitless to try to manage a disruption through price controls and allocations, but in the absence of vigorous administration opposition which has not been vigorous—it has been there—you did come up, but it is not vigorous——

Mr. **DAVIS**. I tried to be as vigorous as I could.

Senator **BRADLEY**. You are going to get price controls and allocations, and in addition because of those you will not do anything to assist the low-income individual to adjust to the higher energy costs beyond what you were doing prior to the disruption.

Thank you very much, Mr. Chairman.

Senator **DOMENICI**. Thank you, Senator.

Senator Ford.

Senator **FORD**. Thank you, Mr. Chairman. I am hopeful, too, that we might have another day on this, and I am becoming more concerned all the time as questions are asked and answers are given.

Mr. Davis, I believe you were asked earlier what is the policy, and you said it is very difficult to put your finger on a policy. Am I correct in that?

Mr. **DAVIS**. No. I don't believe so. What I said is that it is not possible to state a complete energy policy in a few words or in a very concise way.

What we have is a complex assemblage I would say of various energy policies.

Senator **FORD**. Various energy policies?

Mr. **DAVIS**. A policy I think is made up of a lot of different programs and policies.

Senator **FORD**. Programs and policies; policy is made up of programs and policies, is that correct?

Mr. **DAVIS**. That is what I am trying to explain, yes.

Senator **FORD**. Prior to your vintage in the Department of Energy we had at least a statement that there was the national energy plan. Now you have the national energy policy, July 1981.

You tell me what is the difference between you having a printed policy and saying we really don't have one, it is hard to describe, we can't put one together? I felt this was national energy policy. You added the word "policy" and why did you add the word "policy"?

Mr. **DAVIS**. Because what we are trying to do is establish a series of policies and indicate that we are not endeavoring to come out with plans for Federal intervention to try to direct and intervene to bring about these goals, but to try to establish the conditions under which the private sector working with the Government will in fact accomplish what we think needs to be done.

Senator Ford. So your interpretation is that Government should not give any direction at all?

Mr. Davis. I think the Government should set some broad goals and I think that is what has been done. I think the Government should try to create a climate of regulation.

Senator Ford. A climate of regulation?

Mr. Davis. Climate for a lack of regulation or reduced regulation.

Senator Ford. Climate of the lack of regulation; have I got it right now, Mr. Davis? I don't want to be pinning you down, but I want to—I guess I am trying to pin you down.

Mr. Davis. That's what I thought!

Senator Ford. And I am going to press a little harder. I've just started, so you said a climate of the lack of regulation in your policy?

Mr. Davis. What I said—I'm sorry—was to reduce the regulation. I did not intend to imply no regulation.

Senator Ford. To reduce the regulation?

Mr. Davis. Reduce unnecessary regulation, if you like a more precise definition.

Senator Ford. So, the first statement was you want to have a climate of no regulation. Then you want reduced regulations, and then you want regulations only that are effective. Those are your three statements as it relates to policy?

Mr. Davis. I was simply elaborating on the first one.

Senator Ford. Oh, the climate of no regulation; you were asked a while ago if you would prepare a list of conservation grants. Am I correct in that request a few moments ago that somebody made of you?

Senator Domenici. I think Senator Hatfield asked for it and the chairman agreed he was going to get it from them and other sources.

Senator Ford. Mr. Davis, have you read the DOE report on the "Coordination of Federal Energy Conservation Programs Involving State and Local Government"?

[The text of the report follows:]

REPORT TO THE CONGRESS ON THE COORDINATION OF FEDERAL ENERGY CONSERVATION PROGRAMS INVOLVING STATE AND LOCAL GOVERNMENTS

MAY 1979

Prepared by
U.S. Department of Energy
Assistant Secretary for Conservation and
Solar Applications
Office of State and Local Programs

Department of Energy
Washington, D.C. 20585

May 2, 1979

This report is submitted to the Congress in compliance with Section 623 of the National Energy Conservation Policy Act of 1978, Pub. L. 95-619 (92 Stat. 3206 et seq.).

The report contains a discussion of the coordination of Federal energy conservation programs involving State and local governments.

Dale D. Myers

Dale D. Myers
Under Secretary

EXECUTIVE SUMMARY

Section 623 of the National Energy Conservation Policy Act of 1978 requires that:

> "Not later than 6 months after the date of the enactment of this section, the Secretary of Energy shall submit to the Congress a report on the coordination of Federal energy conservation programs involving State and local governments."

This report has been prepared by the Department of Energy (DOE) to fulfill that requirement.

During the past four years, the Congress has enacted four major laws authorizing the Federal government to develop and implement specific energy conservation programs. With regard to each of these four legislative enactments DOE has the primary Federal responsibility for the development, implementation, and administration of the major Federal energy conservation effort. These laws and the programs they authorize are listed below:

(1) Energy Policy and Conservation Act of 1975 (EPCA), 42 U.S.C. 6201 et seq., as amended.

- State Energy Conservation Program (SECP), 42 U.S.C., 6321 et seq. The SECP provides funding and technical assistance to States to develop, modify, and implement State energy conservation plans and supplemental plans. These plans describe the energy conservation activities which States will undertake in order to achieve scheduled progress toward State energy conservation goals.

(2) Energy Conservation and Production Act of 1976 (ECPA), 42 U.S.C. 6801 et seq.

- Weatherization Assistance Program (WAP), 42 U.S.C. 6861 et seq. The WAP provides grants to States and certain native American tribal organizations for the purchase of materials to be used to weatherize the dwelling units occupied by low-income families, especially the low-income elderly and handicapped.

(3) Energy Research and Development Administration Authorization Act of 1977, 42 U.S.C. 7001 et seq.

- Energy Extension Service (EES)
  The EES Program encourages individuals and small businesses to reduce energy consumption and convert to renewable energy resources. Federal funding is provided to establish State EES offices which offer a variety of energy conservation services, including energy audits, specialized training, technical information, workshops, and hotline services.

(4) National Energy Conservation Policy Act of 1978 (NECPA), 92 Stat. 3206 et seq.

- Schools, Hospitals, and Local Government and Public Care Institutions Program (S/H), 92 Stat. 3238 et seq.
  The S/H Program is responsible for identifying and supporting adoption of energy conservation measures in schools, hospitals, and local government and public care institutions. During Phase I of the S/H program, grants are provided to States to conduct and/or administer energy audits in eligible buildings. During Phase II, grants are provided to States for technical assistance audit programs and energy conservation measures.

- Residential Conservation Service (RCS), 92 Stat. 3209 et seq.
  The RCS Program encourages the installation of energy conservation and renewable resource measures in residential buildings. In general, the RCS requires gas and electric utilities to provide their residential customers with energy conservation information, energy audits, and arrangements for the purchase, installation, and financing of energy conservation and renewable resource measures.

The Congress has assigned responsibility for the administration of these programs to DOE and mandated that they be implemented through State and local governments.

In addition to these five programs, DOE is conducting three other energy conservation programs which involve State and local governments. These programs are:

- Urban Waste Program (UW), Title IV, 42 U.S.C. 5920 et seq., of the Department of Energy Act of 1978--Civilian Applications
  The UW Program fosters the widespread use of urban waste as a source of energy and materials. It is directed at developing and improving technologies that reprocess waste into fuels, metals, glass, paper, ammonia, glucose, fertilizers, and other energy intensive products.

- Community Systems Program (CSP), Section 6(b) (3)(A)(iv), 42 U.S.C. 5905, of the Federal Nonnuclear Energy Research and Development Act of 1974
  The CSP, through grants to communities and contracts with key community actors, assists them to develop and put into practice effective community-wide energy conservation programs and projects.

- Appropriate Technology Small Grants Program (AT), Section 112, 42 U.S.C. 5907a, of the Energy Research and Development Appropriation Authorization of 1977
  The AT Program provides grants to individuals, small businesses, local non-profit groups, state and local agencies, and Indian tribes for the development of small-scale, energy-related technologies that could be produced by local skills in response to local needs.

The eight programs listed above are administered through the Office of the Assistant Secretary for Conservation and Solar Applications (CS), which has the primary DOE responsibility for implementing energy conservation policy and programs. A description of the coordination activities related to these programs, which constitute all major CS energy conservation programs involving State and local governments, make up the main body of this report.

During the preparation of this report, it was recognized that other DOE offices and other Federal agencies also have established activities which are related to and/or support energy conservation. These activities take a variety of forms and provide a range of services, including public education, information dissemination, technical assistance, and manpower training. Currently, 50 such initiatives with energy conservation as a primary goal have been identified throughout the Federal government. One-page summaries of such activities, together with summaries of the eight major CS programs described in detail, are included in this report as Appendices A and B.

The coordination activities carried out by the eight major CS programs described in this report are motivated essentially by two factors: 1) the authorizing legislation mandates them; or 2) good program management requires them. This coordination is important to both the success and effectiveness of the programs. Additionally, two of DOE's major energy conservation programs, the SECP and the EES, are in themselves coordinating mechanisms for other DOE programs and the programs of other Federal agencies.

The preparation of this report has led to four major conclusions relative to the coordination of Federal energy conservation programs. These conclusions are:

(1) In cases where the Congress has by law mandated the coordination of different Federal agencies in the implementation of an energy conservation program, such coordination is being carried out successfully. However, it is probable that such coordination would have occurred in any event, since it is essential to successfully meeting statutory objectives.

(2) In many cases, energy conservation program personnel have initiated informal coordination activities with other Federal program personnel both within and outside DOE. This coordination has been initiated in response to the realization that other Federal programs provide similar energy conservation services or services which support the attainment of energy conservation goals.

(3) Other Federal agencies carry out a number of different energy conservation efforts which provide a range of services to target audiences, and, in many cases, these agencies are not coordinating their activities with one another. Rather, they supply a specific energy conservation service to a specific target audience. Although lack of coordination is not necessarily a drawback, a more complete understanding of the wide range of services provided by the various Federal energy conservation programs could make these efforts more effective.

(4) The number of Federal energy conservation programs involving State and local governments may lead to uncertainty as to which service is provided by which programs and also to the imposition of an ever-increasing burden of administrative paperwork. Having recognized this problem, DOE expects to submit to the Congress a new legislative initiative known as the Energy Management Partnership Act (EMPA), which would consolidate and retain some of the activities of the SECP and combine them with the EES. In addition, EMPA would reduce and simplify the administrative requirements imposed on States to obtain financial assistance for State energy conservation programs administrated by DOE.

TABLE OF CONTENTS

Page

Introduction 1

I. State Energy Conservation Program 6

II. Weatherization Assistance Program 12

III. Schools, Hospitals, and Local Government and Public Care Institutions Program 18

IV. Energy Extension Service Program 22

V. Residential Conservation Service Program 29

VI. Urban Waste Program 32

VII. Community Systems Program 35

VIII. Appropriate Technology Small Grants Program 39

Conclusions 42

Appendix A A-1

Appendix B B-1

INTRODUCTION

Section 623 of the National Energy Conservation Policy Act of 1978 requires that:

> "Not later than 6 months after the date of the enactment of this section, the Secretary of Energy shall submit to the Congress a report on the coordination of Federal energy conservation programs involving State and local governments."

This report has been prepared by the Department of Energy (DOE) to fulfill that requirement.

During the past four years, the Congress has enacted four major laws authorizing the Federal government to develop and implement specific energy conservation programs. With regard to each of these four legislative enactments DOE has the primary Federal responsibility for the development, implementation, and administration of the major Federal energy conservation effort. These laws and the programs they authorize are listed below:

(1) Energy Policy and Conservation Act of 1975 (EPCA), 42 U.S.C. 6201 et seq., as amended

- State Energy Conservation Program (SECP), 42 U.S.C. 6321 et seq.

(2) Energy Conservation and Production Act of 1976 (ECPA), 42 U.S.C. 6801 et seq.

- Weatherization Assistance Program (WAP), 42 U.S.C. 6861 et seq.

(3) Energy Research and Development Administration Authorization Act of 1977, 42 U.S.C. 7001 et seq.

- Energy Extension Service (EES)

(4) National Energy Conservation Policy Act of 1978 (NECPA), 92 Stat. 3206 et seq.

- Schools, Hospitals, and Local Government and Public Care Institutions Program (S/H), 92 Stat. 3238 et seq.
- Residential Conservation Service (RCS), 92 Stat. 3209 et seq.

The Congress has assigned responsibility for the admistration of these programs to DOE and mandated that they be implemented through State and local governments.

In addition to these five programs, DOE is conducting three other energy conservation programs which involve State and local governments. These programs are:

- Urban Waste Program (UW), Title IV, 42 U.S.C. 5920 et seq., of the Department of Energy Act of 1978--Civilian Applications
- Community Systems Program (CSP), Section 6 (b)(3)(A)(iv), 42 U.S.C. 5905, of the Federal Nonnuclear Energy Research and Development Act of 1974
- Appropriate Technology Program (AT), Section 112, 42 U.S.C. 5907a, of the Energy Research and Development Appropriation Authorization of 1977

The eight programs listed above are administered through the Office of the Assistant Secretary for Conservation and Solar Applications (CS), which has the primary DOE responsibility for implementing energy conservation policy and programs. A description of the coordination activities related to these programs, which constitute all major CS energy conservation programs involving State and local governments, make up the main body of this report.

Further, during the preparation of this report it was recognized that other DOE offices and other Federal agencies are attempting to address the U.S. energy problem by implementing a variety of efforts intended to help reduce energy demand. Depending upon the agency implementing them, these different Federal initiatives take a variety of forms and provide a range of services such as public education, information dissemination, technical assistance, and manpower training. Based on a survey of DOE and other Federal agencies, 50 additional programs which have as a primary goal the provision of a service related to reducing energy demand have been identified throughout the Federal government and are included in this report. A follow-up analysis is in progress to insure that these 58 programs represent completely and correctly the Federal energy conservation programs involving State and local governments. This report will be supplemented should there be any significant variations between the results of the follow-up analysis and the materials contained in this report.

The main body of this report discusses the coordination which takes place at the Federal level during the course of developing and implementing major energy conservation programs. Such coordination, to the extent it takes place, is the result of two factors: (1) it is mandated in the authorizing legislation; or (2) it represents good program management.

With respect to mandated coordination, an example can be found in the WAP. Section 413 of ECPA requires that regulations promulgated to carry out the WAP must be coordinated with the Director of the Community Services Administration (CSA), the Secretary of Housing and Urban Development (HUD), the Secretary of Health, Education and Welfare (HEW), the Secretary of Labor, and the Director of the ACTION Agency. It further requires that regulations setting standards for weatherization materials and energy conservation techniques be coordinated with the Secretaries of HUD, HEW, and Commerce (National Bureau of Standards). The importance of this coordination to the success of the WAP is discussed in Chapter II.

The SECP (see Chapter I) provides several instances of the Federal coordination which takes place because it represents good program management. One of the program measures a State must agree to undertake in order to qualify for financial assistance is to pass a traffic law or regulation which, to the maximum extent practicable consistent with safety, permits the operator of a motor vehicle to turn such vehicle right at a red stop light after stopping, i.e., a right-turn-on-red (RTOR) law. The Federal Highway Administration (FHWA) of the Department of Transportation (DOT) has the responsibility for setting national policy with respect to RTOR. Therefore, it is incumbent upon DOE to coordinate with FHWA to assure that DOE program criteria and requirements are in concert with those of FHWA even though the authorizing legislation does not specifically mandate such coordination.

Further, two of DOE's major energy conservation programs, the SECP and the EES, are in themselves mechanisms to coordinate other DOE programs and the programs of other Federal agencies with State and local governments. The coordinating activities related to these programs are described in detail in Chapters I and IV, respectively.

In addition to the intergovernmental coordination which takes place at all levels, the eight major CS programs are all coordinated with State and local public interest groups, including the National Governors Association (NGA), the U.S. Conference of Mayors (USCM), the National League of Cities (NLC), the National Association of Counties (NACo), and the National Conference of State Legislatures (NCSL), as well as appropriate professional associations such as the American Institute of Architects (AIA), the National Institute of Building Sciences (NIBS), and the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE). This coordination includes joint conferences and workshops, cooperative efforts to develop technical assistance materials, task forces and panels to assist and advise the development of program policy regulations, and legislative proposals, as well as frequent informal contacts.

These programs also involve the DOE regional office staffs in coordination and program delivery roles. This decentralized structure provides a common focal point for CS programs at the regional level. Moreover, the regional office activities with regard to these programs are coordinated with those of the DOE operations offices and the regional solar energy research centers.

As stated above, the main body of this report describes in detail the coordination efforts related to all major CS energy conservation programs involving State and local governments. Each of the program descriptions is divided into four parts: (A) Background, (B) Need for Coordination, (C) Current Coordination Efforts, and (D) Planned Coordination Efforts. Part A briefly describes the program, including its legislative history, goals and objectives, funding levels, and a description of the involvement of State and local governments in the program. Part B describes the specific reasons for which program coordination is needed. In some cases that coordination is mandated by law; in others it is necessitated by the existence of similar supporting programs in other Federal offices. Part C summarizes the different levels of coordination currently in effect. Finally, Part D describes future coordination efforts which are being planned.

This report is not intended to provide a complete description of all levels of coordination for all Federal energy conservation programs involving State and local governments. However, Appendix A provides an overview of the variety of energy conservation services available from the Federal government. For each of the 58 Federal energy conservation programs identified during the preparation of this report, a one-page summary describes the agency and program office administering the program, the program goals and objectives, the target audience and service(s) provided, and program funding levels.

Following the one-page summaries of Federal energy conservation activities contained in Appendix A, Appendix B provides a matrix of the services provided. The services are divided into eight categories: education, energy audits, grants, information dissemination, planning, technical assistance, training, and weatherization. The matrix thus provides a quick reference to programs with similar missions within DOE as well as throughout the Federal governments.

The list of programs and program activities described in Appendices A and B was compiled from the Comprehensive Program and Plan (CPP) for Federal Energy Education, Extension, and Information Activities (January 1979), which was provided to the Congress by the Assistant Secretary for Conservation and Solar Applications. This document describes all Federal energy "outreach" programs; that is, all Federal initiatives which provide energy education, extension, or information services. The list of programs described in the CPP was identified via a survey of all Federal agencies.

I. STATE ENERGY CONSERVATION PROGRAM (SECP)

A. BACKGROUND

Enabling Legislation

When first enacted, Part C of Title III of the Energy Policy and Conservation Act (EPCA) provided financial assistance to develop, modify, or implement State energy conservation plans (plans). Part C was subsequently amended by Part B of Title IV of the Energy Conservation and Production Act (ECPA) which provided financial assistance to develop, modify, or implement supplemental State energy conservation plans (supplemental plans). Together, the EPCA provisions regarding plans and the ECPA provisions regarding supplemental plans constitute the program for State energy conservation plans. The program currently is authorized through fiscal year 1979.

Funding Levels

SECP Funding
(millions of dollars)

Fiscal Year	EPCA Base Program	EPCA Supplemental Program	Total
1976	$ 5	$--	$ 5
1977	23	12	35
1978	47.8	23.74	71.54
1979	47.8	10	57.8
TOTAL	$123.6	$45.74	$169.34

Goals and Objectives

The SECP enabling legislation recognized the responsibility of the Federal government to foster and promote comprehensive energy conservation programs and practices by establishing program guidelines, overall coordination, and technical and financial assistance for specific State initiatives in energy conservation. Under the SECP, a State may receive financial and technical assistance to carry out either a plan or supplemental plan, or both. To be eligible for financial assistance, the plan must be designed to achieve scheduled progress toward a specific energy goal for the year 1980 and must include five required program measures. To be eligible for financial assistance, the supplemental plan must include three different required program measures. States also may propose to include in a plan or supplemental plan any additional approved program measures which they consider appropriate and which contribute to energy conservation.

The program requires participating States to develop and implement plans that will reduce projected energy consumption in each State. The overall goal of the program is to achieve a 5 percent or more reduction in projected energy consumption by 1980. The goal is expressed in terms of a percentage reduction of energy that would have been consumed in the State in 1980 were it not for the implementation of the plan.

The actual goal established for each State was determined by the Department of Energy (DOE) in consultation with the State, after consideration of many factors including the constraints on the State's opportunities to conserve energy and the level of Federal funding available for such purposes. The overall national goal of the program is to achieve a 5 percent or more reduction in projected energy consumption by 1980.

Relationship to State and Local Governments

The involvement of State governments in the SECP is mandated by the enabling legislation. Funds for the development and implementation of State energy conservation plans and supplemental plans are awarded to participating States through the ten DOE regional offices. These grant awards are administered by the State Energy Office or State Department of Energy. Applications for funding are submitted annually to DOE.

Responsibility rests with the individual States for program development and management as well as for achievement of the energy conservation goals established. DOE's role is to assist the States through the provision of information and technical assistance as well as financial support.

Many States have found that SECP funds provide the possibility of critical leverage for the State Energy Office in achieving cooperation from other State offices, such as in purchasing and transportation, and that it has been possible to establish good working relationships to achieve the goals of the program. Also, some States have adopted the philosphy that both local governments and citizens' groups in many cases are best situated to implement innovative energy conservation programs. One method of passing SECP funds to the local level is to solicit proposed conservation planning activities as well as specific projects for implementation. Conservation outreach activities by citizens' groups at the local level are the second target of some programs.

B. NEED FOR COORDINATION

The need for coordination related to the SECP is suggested in the enabling legislation. Section 361 (a) (3) of EPCA states:

> "...the Federal Government has a responsibility to foster and promote comprehensive energy conservation programs and practices by establishing guidelines for such programs and providing overall coordination, technical assistance, and financial support for specific State initiatives in energy conservation."

Section 367 (b) (1), as amended by ECPA, further states:

> "Each proposed supplemental State energy conservation plan to be eligible for Federal financial assistance under this section shall include...procedures for insuring that effective coordination exists among various local, State, and Federal energy conservation programs within and affecting such State...."

Because of the large range of programs which a State may include for funding in its energy conservation plan, the SECP has developed into a comprehensive program which directly or indirectly relates to virtually every form of energy conservation activity being undertaken by State and local governments. Programs contained in State energy conservation plans include: transportation (carpools/vanpools, driver education), buildings (residential, commercial, industrial), agriculture, utilities, public education/awareness, tax credits and other incentives, industrial processes, energy efficient procurement policies and practices, etc.

C. CURRENT COORDINATION EFFORTS

In addition to being a program with funding to achieve specific goals and objectives, the SECP is in itself a coordination mechanism for Federal energy conservation efforts. Consequently, SECP program personnel coordinate their activities at three levels: 1) with other program offices within the Office of the Assistant Secretary for Conservation and Solar Applications (CS); 2) with other offices within DOE; and 3) with other Federal agencies. The primary purpose of this coordination is to provide technical assistance to the States and to assure that SECP policy is consistent with Federal policy in the programs of other Federal agencies. The following paragraphs discuss these coordination efforts, the SECP activities coordinated, and the organizations involved in those efforts.

The SECP coordinates its activities with virtually every office within CS, because CS programs and projects often provide other funding, information, or technical assistance which are valuable to States in the achievement of their State energy conservation goals and because other CS offices have access to information and technical assistance materials from other Federal agencies through their own coordination activities. To provide a sample of the range of program areas in which the SECP must coordinate its activities in order to provide adequate access to technical assistance for States, the following discussion is provided. This discussion is not meant to cover all coordination activities of the SECP within CS but merely to provide examples of these efforts.

Within the Office of Buildings and Community Systems (BCS), the SECP coordinates in the following efforts:

- Building Energy Performance Standards (BEPS)--one of the mandatory program measures under the SECP is the adoption and implementation by States of thermal and lighting standards. BEPS is currently under development by BCS and will be the successor to standards developed by States under the SECP.

- Life cycle costing--another mandatory program measure is the development of energy efficient procurement policies by States. BCS through its Federal Energy Management Program has developed life cycle costing data relative to energy use in Federal buildings which is transferrable to States via the SECP.

- Many other BCS programs also have applicability to State efforts, including residential and commercial buildings energy conservation, home appliance specifications and testing procedures, programs for small businesses, etc.

Many States have included transportation programs in their State plans; in fact, a measure for carpools/vanpools is required for participation in the program. Therefore, the SECP also works with the CS Office of Transportation Programs (TP) in several areas:

- TP is working jointly with DOT to develop and implement the voluntary truck/bus program which develops specifications, efficiency standards, performance testing, and modifications for the Nation's truck and bus industries. States may include this program as a voluntary program measure for funding under the SECP.

- TP also coordinates its activities with other Federal agencies and shares this information with the SECP. For example, coordination is maintained with the Interstate Commerce Commission with respect to the energy impacts of trucking regulations; with the Civil Aeronautics Board concerning policies involving deregulation; with the Urban Mass Transit Administration and the Federal Highway Administration (FHWA) of the Department of Transportation (DOT) concerning ridesharing programs, nationwide transportation data and specifications on automobiles and trucks; and with DOT's National Highway Traffic Safety Administration with respect to the development of transportation purchasing information, operational and vehicle maintenance procedures, and the 55 mph program.

- The SECP also utilizes other TP program efforts such as carpool/vanpool activities, driver training/education programs, etc.

The other program offices of CS, including the Office of Industrial Programs and the Office of Solar Applications and Commercialization, also develop many program efforts which enhance States' abilities in implementing energy conservation. The SECP attempts to take advantage of these Federal efforts by disseminating information about them to the States.

Outside CS and within DOE, there are also many activities and programs with which the SECP must maintain close and active coordination. Two examples include the Economic Regulatory Administration with respect to State contingency planning and fuel rationing and utilities programs, and the Energy Information Administration concerning baseline energy data forecasts and validation of energy savings data.

Finally, SECP, on its own initiative and in addition to the coordination engaged in by other CS offices, also coordinates some of its activities directly with other Federal agencies. The following are examples of these efforts and do not represent the full range of activities:

- States must have an RTOR law in order to participate in the SECP; such a law is one of the five requirements contained in EPCA. Therefore, since the FHWA has primary responsibility for setting national policy in this area, its guidance is sought during the development of SECP regulations.
- The SECP also works directly with the Federal Supply Service of the General Services Administration with respect to life cycle costing, procurement and product histories, and bid preparation and evaluation to make such information available to State and local procurement officials. In this area, the SECP also makes use of training opportunities and materials developed by the Federal Acquisition Institute of the Office of Management and Budget.

The National Bureau of Standards (NBS) within the Department of Commerce conducts extensive evaluations of a variety of energy conserving materials and is developing a handbook to assist State and local government procurement officers. Consequently, SECP coordinates with NBS in this area. SECP also uses Bureau of the Census population statistics as an element in establishing State energy plan funding formulas.

D. PLANNED COORDINATION EFFORTS

As the SECP evolves, there will be continued efforts to make information and technical assistance available to State and local governments as needs are identified. In some cases this will involve establishing new levels of coordination with other Federal programs which support energy conservation.

II. WEATHERIZATION ASSISTANCE PROGRAM (WAP)

A. BACKGROUND

The Weatherization Assistance Program (WAP) of the Office of State and Local (S&L) Programs is responsible for the Department of Energy's weatherization efforts for low-income families. Title IV, Part A of the Energy Conservation and Production Act (ECPA) encourages the development and implementation of weatherization programs to insulate the dwellings of low-income persons, particularly the low-income elderly and handicapped.

In addition to the provisions of ECPA, the WAP is reinforced by the National Energy Act. Title II, Part 2 of the National Energy Conservation Policy Act (NECPA) provides for the expansion of the WAP, providing program changes based upon experience and authorizing funding of $200 million for FY 1979 (an increase over the $80 million authorized by ECPA) and $200 million for FY 1980. ECPA authorized the WAP only through FY 1979.

The goals of the WAP are:

- To help low-income families save money by improving the energy efficiency of their homes.
- To save energy currently wasted in older, less energy efficient housing by weatherizing 1.1 million homes by 1981 (resulting in an energy savings of 0.016 quads per year).

The program provides grants to States and certain Native American tribal organizations for the purchase of materials to be used in local weatherization programs to improve the thermal efficiency of dwelling units occupied by low-income families.

All low-income households are eligible to receive weatherization assistance. A low-income household is (1) one whose combined income falls at or below 125 percent of the Office of Management and Budget income poverty guidelines, or (2) is the recipient of certain Federal, State, or local cash assistance payments.

Relationships to State and Local Governments

Funding of the local weatherization programs is provided by WAP grants to States through DOE regional offices. The States then are responsible for coordinating the WAP grants at the local level. The governor or his designee applies for, receives, and administers the grant funds, and allocates the funds among local governments and organizations, particularly Community Action Agencies (formerly called Community Action programs), which are neighborhood-based independent community development agencies. These agencies apply to designated State program offices for funding to undertake weatherization efforts. In addition, State or local implementing agencies determine which eligible homes are to be weatherized.

In certain instances, Federally recognized Indian tribes may make separate application to the WAP for weatherization grants. Funding in these cases is accomplished with grants made directly to the tribes for implementation of weatherization programs.

A formula based on the relative need for weatherization assistance throughout the States is used to determine the amount of funds to be allocated for each State. The formula takes into account the number of low-income households and the annual heating and cooling degree days in each State, adjusted by the percentage of total residential energy used for space heating and space cooling.

B. NEED FOR COORDINATION

Since the Congress recognized that weatherization programs are being carried out by Federal agencies other than DOE, they included in NECPA a mandate for coordination with these programs. Section 231 of NECPA specifically states that consultation and coordination must be carried out between DOE, the Department of Agriculture (USDA), the Community Services Administration (CSA), and the Department of Housing and Urban Development (HUD).

DOE's primary responsiblity in this legislated coordination is to develop regulations and standards which can be utilized by other Federal agencies involved in weatherization programs. This is to ensure comparability between programs and a uniform technical approach as well as materials standards for the entire Federal effort. Consequently, there is a need for other agencies to consult with and advise the WAP so that standards are developed which determine the optimum set of cost-effective measures used in Federal weatherization programs.

In addition, specific coordination is mandated in NECPA, Section 233, which imposes provisions on the Department of Labor (DOL) to coordinate with DOE, USDA, and CSA to:

- Identify the areas of the country in which there is an insufficient number of volunteers and training participants and public service employment workers available to work in support of weatherization programs, pursuant to the Comprehensive Employment and Training Act of 1973 and the Older American Community Service Employment Act.
- Take steps to assure that such weatherization programs are supported to the maximum extent practicable by volunteers and training participants and public service employment workers.

Several programs within the Federal government (e.g., the State Energy Conservation Program, the Energy Extension Service, and the Residential Conservation Service) have the mandate of providing energy audits. In many cases these various programs can and do use the same criteria and methodology; however, there is a need for a formal coordination effort among these Federal programs providing energy audits in order to ensure conformity to a consistent set of standards. Moreover, the Office of Buildings and Community Systems (BCS) is developing materials standards for the Residential Conservation Service (RCS) Program. When promulgated, these standards will be adopted by the WAP as well.

C. CURRENT COORDINATION EFFORTS

In order to effect the coordination mandated by law, the WAP utilizes a three-tiered approach. The first tier of coordination is developed at the Federal headquarters level, the second tier continues that coordination at the regional level, and the third tier provides coordination at the State level.

Headquarters Coordination

A Memorandum of Understanding (MOU), signed in 1977, has defined the weatherization responsibilities of DOE, CSA, and DOL at the headquarters level. This memorandum provides that:

- DOE will
  - Develop regulations and technical standards for weatherization materials and techniques.
  - Offer grants to States for the purpose of purchasing weatherization materials and paying limited administrative costs.

- CSA will
  - Corduct a nationwide Emergency Energy Conservation Program as outlined under the provisions of the Economic Opportunity Act of 1964.
- DOL will
  - Encourage their prime sponsors to use their funds for labor costs associated with weatherization projects in accordance with the Comprehensive Employment and Training Act (CETA) of 1973.

The three signatory agencies also agreed to:

- Develop information and systems for DOE to provide guidance to recipients of CETA funds to facilitate their ability to furnish labor for weatherization projects.
- Develop a system for the periodic review and assessment of project efforts to determine their effectiveness.
- Implement a system of information exchange to heighten the awareness of the signatory agencies of innovative and effective weatherization project techniques in use throughout the country.

In addition to the coordination efforts set forth in the MOU, the WAP has conducted informal working relationships with the following agencies:

- ACTION
- Community Services Administration
- National Bureau of Standards
- Department of Housing and Urban Development
- Department of Health, Education and Welfare
- Department of Labor

Additionally, in order to effect the coordination with USDA mandated by NECPA, the WAP is coordinating its weatherization activities with those carried out by the Farmers Home Administration (FmHA).

WAP cooperation and coordination with programs outside DOE is conducted on an ad hoc basis during day-to-day operations. This cooperation, which takes the form of regularly scheduled meetings, informal meetings, and joint staff development, enhances the overall quality and effectiveness of the Federal weatherization effort by identifying and resolving program issues on the interagency level.

The National Bureau of Standards (NBS) provides technical data to the various Federal weatherization efforts. Specifically, the WAP, through the Center for Building Technology in NBS, is provided information relative to material standards for use by weatherization programs. The WAP uses data from NBS in the development of regulations and energy audit criteria.

Regional Coordination

Since the inception of DOE's Weatherization Assistance Program, some grantees and subgrantees in all ten Federal regions have experienced difficulties in obtaining sufficient labor to carry out the weatherization activity. The WAP was asked to provide assistance in resolving these problems as they surface.

In an effort to provide such assistance, the WAP has worked closely with DOL, CSA, the Office of Management and Budget (OMB), and the staff of the White House Domestic Policy Council. These activities have led to an agreement between DOL, CSA, and DOE in which the following steps have been taken:

- DOE has issued a questionnaire to all weatherization project sponsors to obtain baseline data on labor in each local area.
- Each agency has issued comparable instructions to its regional offices requiring joint action at the regional level to attempt to resolve labor difficulties.

Each DOE regional office is responsible for entering into an agreement between DOE and CSA regional offices. Each agreement must contain the following elements:

- DOE, DOL, and CSA staffs will meet regularly to determine the most effective means of facilitating cooperation between prime sponsors, which are organizations designated by DOL to receive CETA funds for training purposes.
- DOE, DOL, and CSA staffs will provide technical assistance and training to prime sponsors and weatherization project operators, as needed, to assist in resolving labor difficulties.

- DOE, DOL, and CSA will communicate to each other problems encountered between prime sponsors and the project operators which affect labor availability for the weatherization program.
- DOL will encourage prime sponsors to sustain current projects and enter into new project agreements where shortage of labor is evident.
- In prime sponsor jurisdictions where a match of labor and weatherization funds cannot be achieved, DOL will advise DOE and CSA of prime sponsor jurisdictions within the same State where additional CETA workers can be supplied.

State Coordination

State coordination is conducted on an informal basis between DOE and State agencies or grantees such as Indian tribes. Although DOE is not directly involved with implementation of the WAP, DOE provides grants through its regional offices to fund grantees. Therefore, DOE carries out coordination activities at the State level. For example, each of DOE's regional offices holds quarterly meetings with representatives from all the States within the region. At these meetings program regulations, future funding levels, labor problems, etc., are discussed. All the States are invited to a general meeting held twice a year, during which DOE headquarters personnel discuss problems common to all States.

D. PLANNED COORDINATION

Currently the WAP is working closely with both CSA and DOL in order to improve the existing interagency coordination as well as to develop new areas of mutual interest. Specifically, the WAP is seeking increased regional interagency interface. In addition, the WAP is involving itself with the job creation demonstration program in DOL by participating in meetings and evaluations of the program. The job creation program is a potential source of labor to supplement the existing CETA workers.

Coordination is planned by the WAP in the area of future rulemaking. At this time the WAP is developing standards and regulations for weatherization. Standards development will be coordinated with the Residential Conservation Service (RCS) Program within the CS Office of Buildings and Community Systems (BCS).

III. SCHOOLS, HOSPITALS, AND LOCAL GOVERNMENT AND PUBLIC CARE INSTITUTIONS PROGRAM (S/H)

A. BACKGROUND

The Schools, Hospitals, and Local Government and Public Care Institutions Program of the Office of State and Local (S&L) Programs is responsible for identifying and supporting adoption of energy conservation measures in schools, hospitals, and local government and public care institutions. In the version of the National Energy Act (NEA) passed by the House of Representatives in 1977, the section concerning grants to schools and hospitals was expanded with the authorization of funds to assist local government and public care institution buildings. For simplicity, this paper will deal with these two parts of the program as one and will refer to it as the Schools and Hospitals (S/H) Program.

Although this program is new, it constitutes a major Federal effort in the area of energy conservation in buildings and thus is an important part of the national conservation effort. The National Energy Conservation Policy Act (NECPA) contains provisions for grant programs to promote energy conservation in public and private non-profit buildings constructed prior to April 20, 1977. The S/H program provides 50 percent matching Federal grant funds for programs to be administered by energy offices in each of the 50 states, Puerto Rico, the Virgin Islands, the District of Columbia, Guam, and American Samoa.

The program is divided into two phases. In Phase I, DOE will provide grants to each State to conduct and/or administer a Statewide program of Preliminary Energy Audits (PEA's) and energy audits (EA's) in eligible buildings. PEA's will establish a building profile of each eligible facility (with respect to type, size, energy use level, and energy using systems), and EA's (performed by site-visit) will identify changes in operations and maintenance procedures which would reduce energy consumption without significant capital expenditure, and make a "first cut" estimate of the payback periods of various possible building retrofit measures.

In Phase II of the program, DOE will provide grants for technical assistance audit programs and energy conservation measures. Grants under the second phase of the program will be awarded to either States or eligible institutions in accordance with Statewide plans developed by each State Energy Office and approved by DOE. Grant applications will be submitted annually to DOE through the State Energy Offices, which will approve and prioritize them for funding and then forward the applications to DOE for final approval and grant award. The authorized total funding for these programs provides $900 million for schools and hospitals and $65 million for local government and public care institution buildings.

DOE has published regulations governing the two phases of the grant program, 44 FR 19340 et seq. (April 2, 1979) and 44 FR 22940 et seq. (April 17, 1979). During the drafting of the proposed and final rulemakings for both program phases, the DOE Office of Solar Applications provided needed information and guidance to strengthen the sections of each rulemaking dealing with solar and renewable resource energy, and to encourage their eventual implementation by eligible institutions. Staff of the Office of Solar Applications were members of the grant program office's Working Group, which coordinated DOE input to the regulations.

B. NEED FOR COORDINATION

To fully realize the legislated mandate of providing assistance to eligible schools and hospitals and buildings owned by units of local government and public care institutions, coordination is necessary between selected Federal agencies. Although there is no special coordination mandated by NECPA, there is a need to develop this new program in consonance with existing Federal assistance programs. Therefore, interagency coordination is being encouraged.

Some coordination is needed in the area of rulemaking for the schools and hospitals program. While DOE has the responsibility for writing the regulations for these grant programs, consultation between Federal agencies is occurring. Formally, this consultation results in review and comments on the regulations designed by DOE. Informally, the consultation provides suggestions as to possible direction and focus of the proposed regulations. Interagency coordination also provides the communication necessary to prevent duplication of Federal assistance.

Because this program is new, it is important that program information be disseminated to all eligible participants. This information includes the objectives of the programs, the application procedure, and regulations governing the program. To disseminate this information, it will be necessary to coordinate with those Federal agencies (e. g., HEW) which can provide ready access to eligible participants.

C. CURRENT COORDINATION

While this program is currently in a start-up phase, coordination efforts are being initiated which will improve the overall quality of the program. Correspondence has been sent to several Federal agencies (e.g., EPA, HEW) to determine contact persons to provide assistance in development of rules and regulations.

The National Oceanographic and Atmospheric Administration (NOAA), a division of the Department of Commerce (DOC), currently is developing regional standard weather criteria as the basis for comprehensive energy audits. By utilizing NOAA's data, S/H is developing concise and consistent information for use by States in these programs. In addition, DOE is coordinating with the Bureau of Census of DOC to develop population information and statistical sampling techniques.

S/H also is using offices within HEW to act as agents for the program by serving as points of information dissemination. For instance, the Office of Education within HEW is assisting S/H by providing program information to various schools. In turn, those schools will funnel their input regarding the S/H program through the HEW Office of Education back to S/H, thereby utilizing an already existing communication system.

S/H currently is coordinating with the Veterans Administration (VA) Energy Conservation Program through formal and informal information sharing sessions. This program provides the following services:

- Cost-effective energy conservation in VA health facilities
- Energy reporting systems identifying types and cost of fuel for each facility
- Identification of potential facility energy conservation
- Technology transfers between facilities

D. PLANNED COORDINATION

The S/H Program is planning for increased future coordination activities. Memoranda of Understanding (MOU's) are planned with the Office of Education within HEW and the Economic Development Administration (EDA) within DOC. These MOU's are being developed to formalize the coordination and cooperation between these offices in the areas of information dissemination and program planning to avoid duplication of effort.

IV. ENERGY EXTENSION SERVICE (EES)

A. BACKGROUND

Enabling Legislation

The Energy Extension Service (EES) was established by Title V of the Energy Research and Development Administration Appropriation Authorization, enacted in June 1977. Prior to passage of that legislation, Congress conducted extensive investigations into the nation's energy conservation needs and the existing programs which had been established to meet those needs. The results indicated that an intensive effort to educate and inform small-scale energy users of practical energy conservation opportunities was needed.

The Act set the timeframe for a two-stage implementation of the EES program. The first stage, a 10-State pilot program, began immediately after enactment. The Act provided that the second stage of the program was to be launched by October 1, 1978, by which time DOE was required to issue a regulation making EES grants available and invite all States and Territories to participate in the program. Although the regulation was issued on September 28, 1978, the governors have not yet been invited to participate in a national program due to a provision of the FY 1979 EES appropriation (described below).

Funding Levels

For FY 1977 and FY 1978 a total of $15 million was appropriated to conduct the 10-State pilot program. In making the $15 million FY 1979 appropriation, the Interior and Related Agencies Appropriations Conference Committee provided that the EES could not be expanded nationally until DOE submitted an evaluation of the pilot program and Congress approved the expansion. The evaluation report was submitted to Congress in March 1979.

In August 1977 the 10 pilot States received $1.1 million each for an 18-month pilot period which was scheduled to end on March 31, 1979. Grants of $30,000 each also were made to the remaining States and Territories to observe the progress of the pilot States and to prepare for participation in a nationwide program. To allow for thorough consideration of the evaluation report submitted to Congress, the EES pilot program has been extended until September 30, 1979, and an additional six months of funding is being provided both to the pilot States and other States and Territories. Pilot States are eligible for an additional $370,000 each, and the other States and Territories for an additional $15,000 each.

Goals and Objectives

The Energy Extension Service (EES) program encourages the implementation of energy conservation measures and the use of renewable energy resources. The program works through the States, who design and implement activities to assist energy consumers to adopt energy-efficient practices and technologies.

The program is a cross-cutting effort that includes activities in a number of "outreach" areas: public education, consumer affairs, Federal-State relations, and community efforts to conserve energy. Specifically, the objectives of the EES are to:

- Encourage individuals and small businesses to reduce energy consumption and convert to renewable energy resources.
- Provide feedback regarding institutional and technolgical barriers to the adoption of energy-saving measures to local, State, and Federal decisionmakers.
- Help reduce the impact of fuel shortages and price increases on small-scale energy consumers by developing a credible assistance and information program that facilitates the adoption of energy-saving measures.

Several features distinguish the EES program. First, program services are designed and operated by the States rather than by the Federal government. DOE/EES provides oversight, guidance, and technical assistance to the States to aid them in implementing their programs; however, the primary impetus and direction comes from the States. Such decentralized organization helps to ensure that the services provided are tailored for and responsive to local needs and problems.

Second, the EES focuses on small-scale energy consumers, who collectively use about 40 percent of the energy consumed annually in the United States.

These include residential energy consumers, small business operations, schools, hospitals, and State and local governments. The program also addresses groups that influence energy use such as architects, builders, and bankers.

Third, the EES aims to provide direct, personalized assistance to these audiences to help ensure adoption of energy-saving techniques. Examples of such assistance are building audits, specialized training, workshops, and hotline services.

Finally, the EES is designed to supplement other outreach programs while avoiding duplication of services.

Through the EES program DOE provides to the States high priority technical assistance, including specialized training which is not otherwise available. The EES serves the States by screening information materials for pertinence to State program needs and, as necessary, assuring review of such materials for technical accuracy. In an effort to make optimum use of existing resources, DOE is concentrating on identifying and building State awareness of the network of technical assistance resources that can be used independently by them. DOE also emphasizes information sharing among the States themselves.

Relationship to State and Local Governments

As described above, the States have the key role in the EES program. Although DOE provides policy guidance and technical and financial assistance, the States are responsible for the design and management of their individual EES programs. Within principles of sound management and the intent of the Act, States are given maximum flexibility to design programs appropriate to their needs.

B. NEED FOR COORDINATION

A central tenet of the EES is that the program will complement and supplement--but not duplicate--the activities of other Federal energy conservation programs. This principle applies to both the Federal and State EES operations. Coordination activities are therefore of fundamental importance to the EES.

C. CURRENT COORDINATION EFFORTS

At the Federal level, coordination centers on policy and technical assistance issues. With regard to policy, the goal of Federal coordination efforts is to ensure complementary and nonduplicative program functions and to share program experience. For technical assistance, the goal is to identify existing technical resources that the States can draw upon and offer the EES as a State network through which appropriate information can be disseminated.

On January 1, 1979, responsibility for the EES was shifted from the Assistant Secretary for Intergovernmental Relations (IR) to the Assistant Secretary for Conservation and Solar Applications (CS), Office of State and Local (S&L) Programs. This management reorganization will allow the EES to coordinate more effectively with other CS energy conservation programs.

The EES has undertaken a number of coordination activities to realize its objectives. An Interagency Coordinating Group (ICG), consisting of members from the EES and representatives of 15 other Federal departments and agencies, was established in 1977 to serve as an information-sharing mechanism among the various Federal programs. This group, which meets informally 2-3 times per year, provides the basis for interagency consultation and review of EES policy, guidelines, and regulations.

An Intra-DOE Coordinating Group also was established in 1977. This group, composed of representatives of DOE programs related to the EES, meets about four times a year to share program information.

Through training sessions, workshops, and short courses, the EES has involved other DOE offices and other Federal agencies in providing information and assistance to the pilot States, with the frequent result that these States have established their own relationships with other Federal offices. Joint study efforts also have been initiated with other DOE offices. For instance, a study of the technical assistance needs of the States has been initiated as a cooperative effort between the State Energy Conservation Program (SECP) and EES offices and includes inputs supplied by pertinent offices throughout DOE and within other Federal agencies.

During the past year it has become increasingly clear that both formal and informal communication mechanisms are essential for effective EES implementation. The ICG and the Intra-DOE Coordinating Group are important not only because of the information-sharing and dialogue which occur at meetings of members, but also because of the regular contacts which are established for meeting specific information-sharing needs and requests.

Members of these two groups have been key contributors to two reports . The first is the Energy-Related Technical Assistance Guide, due to be completed by June 1979. The Guide will be a comprehensive listing and description of the Federal and State technical assistance resources available to the States. The second report is A Comprehensive Program and Plan for Federal Energy Education, Extension and Information Activities, prepared annually. Among other purposes, this document inventories all Federal programs carrying out such activities. The EES also offers to disseminate relevant materials from other programs through its monthly "Info-EES" mailing to the States.

The EES is involved in a number of other coordination efforts. For instance, on October 30, 1978, a Memorandum of Understanding was signed between DOE and the Department of Agriculture (USDA) which includes a mechanism for sharing information related to extension services. The EES director and the USDA Director of SEA-Extension co-chair the DOE/USDA Working Group on Extension and Outreach.

The EES also has had frequent contact with the Solar Energy Research Institute, the four regional Solar Energy Center Offices, and the National Solar Heating and Cooling Information Center. These latter offices, in turn, have met with State EES officials to provide technical assistance to State and local solar outreach programs.

Coordination also is an important consideration at the State level. The majority of pilot States have established EES advisory groups to help ensure that services provided under EES supplement, but do not duplicate, those available from other sources. The States are encouraged to establish cooperative relationships with other related State programs, and they must describe these relationships in their State EES plans. Several of the pilot States have commented on the usefulness of the EES as coordinator of conservation programs at the State level. The pilot States also have been actively sharing information on EES experience with the other States and Territories. The pilot States, together with DOE, have sponsored four regional information-sharing conferences for the other States in addition to meeting individually with them.

D. PLANNED COORDINATION EFFORTS

As the EES evolves from a 10-State pilot to a national program, the nature of Federal program coordination will change. In preparation for a nationwide program, DOE regional offices will become the first point of contact and back-up to the State EES programs. The EES headquarters role will shift to back-up for the regions, coordination of technical assistance across the regions, and the mechanism through which technical assistance requirements that cut across regions can be satisfied. Headquarters will retain its present responsibility for overall EES policy guidance and program evaluation.

EES will continue to use the coordination mechanisms specified above. It is expected that the Energy-Related Technical Assistance Guide will become a major focus for further identification of policy level coordination needs and a mechanism for helping States contact Federal and State offices that can provide technical assistance.

DOE has considered the relationship of a national EES program to programs enacted as part of the National Energy Act (NEA), such as the Residential Conservation Service, the Schools and Hospitals Program, and the Local Government and Public Care Institutions Program. All these programs have energy information and audit components directed to target audiences that one or more pilot States are now serving under the EES. DOE believes that the EES gives the States the flexibility to "design around" and not duplicate these new programs as they become operational at the State level. The EES is useful in the context of the NEA programs since its adaptive structure provides States the flexibility to add to, tailor, experiment with, or bring together programs under other authorities, thereby significantly increasing the likelihood that these programs can be adapted to and operated in a way that meets the particular needs of each State.

Increased coordination and consultation with private sector representatives is planned for the upcoming year. The purpose is to identify and minimize areas of potential conflict and to develop a mutually beneficial working relationship. To this end, DOE will publish in 1979 a notice of inquiry in the Federal Register and hold a public meeting on EES/private sector coordination. DOE also will consult with the National Energy Extension Service Advisory Board, a 20-member group comprised of representatives from State and local governments, educational institutions, consumer groups, and business and industry.

V. RESIDENTIAL CONSERVATION SERVICE (RCS)

A. BACKGROUND

The Residential Conservation Service (RCS) Program carried out by the Office of Buildings and Community Systems (BCS) was established by Title II of the National Energy Conservation Policy Act (NECPA). The purpose of the program is to encourage the installation of energy conservation and renewable resource equipment, including devices to utilize solar energy or windpower, in residential buildings. In general, the RCS program requires gas and electric utilities to provide to their residential customers energy conservation information, energy audits, and arrangements for the purchase, installation, and financing of energy conservation and renewable resources measures.

NECPA assigns specific responsibilities for the RCS program to the Federal government, the States, and utility companies. The Federal government, through DOE, is to promulgate rules identifying appropriate energy conservation and renewable resource measures, setting standards governing both materials and installation of residential insulation, and setting standards to protect consumers, installers, contractors, and lenders from unfair practices.

The role of the State, if the governor chooses to have the State participate in the program, is to insure that the utilities implement the program in accordance with NECPA through a designated lead agency. Upon adoption of the final rules implementing the RCS program, the governor must submit a State plan within 180 days, if he elects to participate. The plan covers all regulated utilities and may, at the governor's discretion, cover non-regulated utilities and home heating suppliers. Although the final rules probably will not be implemented until late summer 1979, two States, California and Wisconsin, already have designated lead agencies.

The role of the regulated utilities is critical to the program, since utility participation is mandatory whether or not the State chooses to participate. The utilities must offer their customers home energy audits and arrange for installing and financing insulation in existing homes (retrofitting) at fair prices and reasonable rates of interest. However, NECPA specifically prohibits utilities from supplying or installing residential energy conservation devices or making loans for the purchase or installation of energy devices.

No funds were appropriated for RCS in the FY 1979 budget. However, a supplemental budget of $4 million has been requested for FY 1979. If approved by the Congress, these funds will be used to provide technical assistance to the States and to monitor and evaluate program results.

B. NEED FOR COORDINATION

NECPA requires DOE to consult with the Secretary of Commerce, through the National Bureau of Standards, regarding any product or material standard used in the RCS program in order to judge the efficiency and safety attributes of energy conservation or renewable resource measures. NECPA also requires DOE to consult with the Federal Trade Commission to ensure consumer protection.

In addition, other Federal agencies such as the General Services Administration, the Department of Housing and Urban Development, and the Consumer Products Safety Commission set standards for products and devices which may be used in the RCS program. Coordination is required among these groups to promulgate a single, consistent set of standards.

Within DOE, the Weatherization Assistance Program (WAP), the Energy Extension Service (EES), and the State Energy Conservation Program (SECP) carry out activities (e.g., energy audits) which are similar to elements of the RCS program. Coordination is required to eliminate potential redundancies. Internal coordination within DOE also is required with the Economic Regulatory Administration, the Office of Policy and Evaluation, the Office of General Counsel, and the Office of State and Local Programs in the development of rules and regulations implementing the RCS program.

C. CURRENT COORDINATION EFFORTS

Since the rules and regulations for the RCS program have not been finalized, current coordination efforts have focussed on the rule-making procedure. A Working Rules Group made up of members of the Federal Trade Commission, National Bureau of Standards, Consumer Products Safety Commission, General Services Administration, and Department of Housing and Urban Development have assisted RCS in the development of program rules and regulations. In addition, the Office of State and Local (S&L) programs is reviewing the final rules to assess RCS consistency with S&L programs related to energy conservation.

D. PLANNED COORDINATION EFFORTS

The RCS program regulations, when promulgated, will establish the standards for the general safety, effectiveness, and installation of residential energy conservation measures. Consequently, the RCS will coordinate its program with other Federal programs involved in energy conservation to ensure consistency and avoid duplication. For instance, since the EES, the SECP, and the WAP all have energy audit functions, the RCS will coordinate with then to reduce or eliminate program redundancy. The RCS also will work with State Energy Offices if they are the designated lead State agencies appointed by the governor.

VI. URBAN WASTE (UW) PROGRAM

A. BACKGROUND

The Urban Waste (UW) Technology Branch of the Office of Buildings and Community Systems (BCS) is conducting a diversified research, development, and demonstration program to foster the widespread use of urban waste as a source of energy and materials. This program is directed at developing and improving technologies that reprocess waste into fuels, metals, glass, paper, ammonia, glucose, fertilizers, and other energy intensive products. Another objective is to achieve energy conservation through reduced energy consumption in the processing of urban wastes.

DOE's authorization for this effort is contained in the Department of Energy Act of 1978--Civilian Applications (P.L. 95-238). This Act amended the Federal Nonnuclear Energy Research and Development Act of 1974 (P.L. 93-577) by adding a new Section 19 authorizing loan guarantees and a new Section 20 authorizing grants, cooperative agreements, contracts, and price supports (42 U.S.C. 5919, 5920).

Grants or contracts for UW programs are currently funded for design and feasibility analyses of projects to be conducted in large and small communities with diverse characteristics, population densities, and climates. The diverse programs range from producing steam from municipal waste to recovering methane from municipal landfills. The FY 1979 budget for the UW program is $13.5 million ($5 million for local programs).

UW strategy for development of energy recovery technologies has been to encourage demonstration projects. Assistance is provided to demonstration projects through the following methodology:

- Assist project participants in organizing, planning for, and managing their projects.
- Provide financial and economic incentives for public and private entities to proceed with a demonstration project.
- Support the capital cost of desirable demonstration projects which could not otherwise be financed.

This strategy is designed to overcome the key impediments (e.g., technology cost-effectiveness) to the demonstration of technologies which recover energy from waste.

B. NEED FOR COORDINATION

In order to ensure the development of an efficient and comprehensive national resource recovery program, DOE activities are coordinated with the Environmental Protection Agency (EPA), the U.S. Department of Agriculture (USDA), the Department of Commerce (DOC), and various State and local efforts in resource recovery. This coordination is needed both to avoid duplication of Federal effort and to maximize the interagency cooperation needed to run a comprehensive program. For example, there is a need to develop a closer, more formal relationship with EPA, especially the Office of Solid Waste and the Office of R&D.

In order to provide information to States relative to the composition and heat value of various types of urban waste, the UW program will have increasingly more contact with the National Bureau of Standards (NBS). NBS is currently conducting a study to determine heat values and various compositions of urban waste.

In addition to the coordination necessary outside DOE, the activities of various offices within DOE also must be coordinated. For instance, the Federal Energy Regulatory Commission (FERC) and the Economic Regulatory Administration (ERA) must be involved so that information provided to States is consistent with DOE regulations and guidelines. Similarly, counsel regarding ecological and environmental issues must be coordinated with the Assistant Secretary for Environment (EV).

C. CURRENT COORDINATION

In order to provide as comprehensive a program as possible, the UW program has developed working relationships with other Federal agencies as a part of their program planning. EPA, for example, currently is conducting programs which are similar to parts of the UW program. A good example of this parallel effort is within the area of energy production and conservation in water and wastewater treatment. In this area DOE and EPA are funding a number of joint ventures such as the preparation of an energy assessment procedure manual. This manual will provide guidance to planners, design engineers, plant operators, Federal agencies, and other interested parties for energy recovery and conservation in the design, construction, and operation of municipal wastewater collection and treatment facilities.

NBS currently is conducting research into various aspects of urban waste. This research is providing valuable data relative to the composition and efficient disposal of waste. The UW program currently is coordinating with NBS to provide various government bodies and active UW research projects with the results of these studies, many of which provide valuable energy data (e.g., heat value of waste).

In addition, an Interagency Resource Recovery Council concerned with the coordination of Federal waste efforts has been established. Although not formally a member, DOE has been invited to participate, and does so, in an ad hoc capacity. Although this group has just been initiated, it shows promise for instituting Federal coordination in the area of resource recovery. The various members (EPA, USDA, the Department of Defense (DOD), the Department of Interior (DOI), and the National Aeronautics and Space Administration (NASA)) currently are working to formulate formal working relationships to coordinate their various efforts.

D. PLANNED COORDINATION

Although the UW program currently is working with EPA on programs such as energy recovery from wastes and conservation in water and wastewater treatment, there is a need to further develop and maintain constant cooperation and coordination with EPA in areas of their mutual interest. To that end, a Memorandum of Understanding (MOU) was developed and currently is being implemented to provide a formal ongoing relationship between DOE and EPA in the specific area of energy recovery from municipal wastes.

In addition, the UW program will continue to work with the Interagency Resource Recovery Council toward development of a coordinated Federal effort. The council has the potential for providing new insights and increasing resources in the area of urban waste energy recovery.

VII. COMMUNITY SYSTEMS PROGRAM (CSP)

A. BACKGROUND

The Community Systems Program (CSP) is an energy conservation development and demonstration program within the Office of Buildings and Community Systems (BCS). This program has no special legislative mandate but was initiated as part of DOE's general RD&D responsibilities as defined by the Federal Nonnuclear Energy Research and Development Act (P.L. 93-577).

Through grants to communities and through contracts with key community actors, the CSP assists them to develop and put into practice effective community-wide energy conservation programs and projects. Thus, CSP grants lead to the development and demonstration of community energy conservation projects that:

- Combine use of the energy resources available within a community, reducing reliance on external and scarce fuels
- Increase the use of fuel-efficient energy systems in supplying utility services
- Substitute energy systems that use non-scarce fuels for those that consume oil and natural gas
- Reduce the end-use demand for energy through community planning and development practices

The CSP's definition of a "community" attempts to be as inclusive as posible. Consequently, business or residential districts, multi-use planned developments, or office complexes as well as municipalities and urban areas may be considered communities for purposes of the CSP.

The CSP's budget allocation for FY 1979 is $19.4 million, and an FY 1980 budget of $16.8 million has been requested. Funds may be allocated to communities directly after their selection through competitive procurements or unsolicited proposals. Communities may participate in funded projects indirectly as a member of a team (i.e., communities can team with utilities, developers, financiers, or local governments). Teams of key community groups, or actors, are formed to carry out prototype applications of a given energy system concept in a particular type of community. These teams are organized and funded in two ways: in some cases, the team as a whole is funded by DOE and selects its own leader, while in other cases DOE funds one local organization (e.g., a utility) to lead the prototype application project.

Additionally, to provide the tools and information that will accelerate such applications CSP conducts supporting work in three areas: Systems Engineering, Planning and Development, and Implementing Mechanisms. Under this supporting work the funding of different CSP projects leads to the development of the following types of products:

- Systems Engineering Products
  - Designs that combine current and emerging technologies into efficient, cost-effective community energy supply systems
  - Methods that help the engineering and energy planning professions analyze and design community energy systems
- Planning and Development Products
  - Planning and design techniques for mirroring community energy demands
  - Methods for effectively merging planning and development practices with energy supply systems planning
- Implementing Mechanisms Products
  - Strategies and methodologies that encourage the widespread use of energy-conserving community systems
  - Characterizations of institutional and regulatory arrangements that are conducive to comprehensive community energy management

B. NEED FOR COORDINATION

The CSP is oriented toward the development and widespread application of innovative community energy management programs and service delivery systems projects which utilize reliable, commercially available component technologies. As such the effectiveness of the program is not limited by availability of hardware technologies, but rather by institutional inpediments to systems innovation. Therefore, primary coordination needs are in the institutional intra-and inter-governmental areas. However, since the innovative systems applications thrust of the CSP offers real opportunities for effective application of emerging technologies, coordination is pursued in this area also.

There is a need for the CSP to interface with the Economic Regulatory Administration (ERA) and the Federal Energy Regulatory Commission (FERC) to obtain guidance and provide input relating to rules and regulations affecting utilities, since utilities often are members of the community groups participating in CSP application projects. There is an additional need to coordinate with the Energy Extension Service (EES) and the State Energy Conservation Program (SECP) to provide a resource for the dissemination of information developed through the CSP.

Finally, the CSP needs to coordinate with agencies outside DOE which affect energy use in communities. This coordination can provide compatibility of program effort and increase the effectiveness of program results in communities.

C. CURRENT COORDINATION

The CSP currently is coordinating with other offices within DOE as well as with other Federal agencies in order to help communities implement energy conservation and management programs and projects. Within DOE, the CSP maintains information contracts with ERA, the Intergovernmental Affairs Office, and Energy Technology (ET) offices (e.g., the Office of Solar, Geothermal, Electric and Energy Storage Systems). The programs carried out by these offices are coordinated and projects pursued cooperatively as appropriate with the CSP program and projects.

The CSP also is coordinating its activities with other Federal agencies that affect energy end-use in communities. These include:

- Department of Transportation
- Environmental Protection Agency
- United States Department of Agriculture
- Department of Defense

This coordination is accomplished through interagency agreements which specify areas of coordination and which launch specific collaborative projects.

D. PLANNED COORDINATION

While the CSP currently has been coordinating with other DOE offices on an ongoing basis, that coordination will increase as the site-specific impact of community systems programs increase. For instance, since the CSP disseminates program information and results to States, local municipalities, and communities, the CSP is planning to involve the EES to ensure a more comprehensive distribution of program information. Furthermore, in order to provide fuller coverage of its current cooperation and coordination with other Federal agencies, the CSP is formalizing its relationships with additional agencies through interagency agreements now being explored with the Department of Housing and Urban Development (HUD) and the Department of Health, Education and Welfare (HEW).

VIII. APPROPRIATE TECHNOLOGY (AT) SMALL GRANTS PROGRAM

A. BACKGROUND

The Appropriate Technology (AT) Small Grants Program, originally organized under the Office of Buildings and Community Systems (BCS), was required to be established by Section 112 of the Energy Research and Development Administration Appropriation Authorization Act of 1977 (P.L. 95-39). That section mandates a program to provide grants to individuals, small businesses, local non-profit groups, State and local agencies, and Indian tribes for the development of small-scale, energy-related technologies that could be produced by local skills in response to local needs.

The enabling legislation limited grants to a recipient to a maximum of $50,000 over two years. In order to fund such grants, a $3,000,000 AT budget was appropriated in FY 1978. The AT budget was increased to $8,000,000 in FY 1979, and the FY 1980 budget request is $8,500,000.

State and local governments are involved in several ways in the Appropriate Technology Small Grants Program. State and local agencies are eligible to apply for and receive grants under this program. States have the responsibility for nominating a review panel which will consist of State residents with an interest in appropriate technologies. This panel is responsible for reviewing all technically eligible proposals originating from within the State and for providing the findings and comments of its members to the DOE selection panel. In many instances the States become involved in information dissemination and grant monitoring for the AT program.

The Appropriate Technology Small Grants Program has been reorganized recently as part of the Office of Small-Scale Technology. This reorganization not only will give the AT program more visibility, but will improve coordination of all CS programs which provide support for low-cost, small-scale energy-conserving technologies like those developed and demonstrated by the AT program.

B. NEED FOR COORDINATION

Coordination of the AT program with other Federal energy conservation programs involving State and local governments is necessary because of several factors both within and outside the program itself. For instance, since the AT program intends to include States in the grant review, evaluation, and monitoring process as much as possible, it is necessary to coordinate AT activities with other Federal programs that involve State participation in order to define respective roles and to take advantage of existing channels of communication on the State and local levels. Similarly, since information dissemination mechanisms already exist on both the Federal and State levels, program coordination is necessary so that energy conservation information generated through the AT program is disseminated to interested audiences quickly through existing channels.

Furthermore, Federal programs exist which, although they are not involved primarily in energy conservation, carry out activities which are potentially beneficial to AT grantees. Coordination is necessary with these programs so that the grantees may be made aware of Federal services available beyond the term of the AT grant.

C. CURRENT COORDINATION EFFORTS

In order to implement its program as quickly as psosible, the AT program coordinates its activities with other Federal programs which have already established State/local program offices or information dissemination mechanisms. For instance, the AT program takes advantage of local offices established by the Community Services Administration (CSA) to advertise its small grants program and elicit local responses. The AT program also advertises its program and disseminates resulting information trhough the Office of Neighborhoods in the Department of Housing and Urban Development (HUD). Within DOE the Energy Extension Service (EES) serves as a useful tool disseminating AT program information and grant results.

The AT program also maintains a close working relationship with DOE's Energy Related Inventions Program organized under the Office of Intergovernmental

Relations (IR). The IR program, managed in conjunction with the National Bureau of Standards (NBS), provides for invention evaluation which, if successful, may lead to a recommendation for Federal support.

Although no formal coordinating mechanism exists, the AT program shares its program results with other DOE offices with an interest in small-scale energy conservation technologies. For instance, by informing DOE's passive solar office of both successful and unsuccessful projects carried out under its program, AT ensures that successful results are applied on a wider scale, while unsuccessful efforts are not duplicated.

Finally, the AT program supports the development and demonstration of simple, small-scale, low-cost technological innovations in order to encourage their eventual commercialization. Consequently, the AT program plans to direct its successful grantees to other Federal agencies, such as the Small Business Administration (SBA), for possible support during the commercialization process.

CONCLUSIONS

The preparation of this report has led to four major conclusions relative to the coordination of Federal energy conservation programs involving State and local governments. These conclusions pertain to the implementation of legislatively mandated coordination, the extent of informal program coordination both within and outside DOE, and the possible need for further legislation.

First, in cases where the Congress has mandated the coordination of different Federal agencies in the implementation of an energy conservation program, such coordination is being carried out successfully. However, it is probable that such coordination would have occurred in any event. For example, the Weatherization Assistance Program must use Comprehensive Employment and Training Act (CETA) workers to perform the labor involved in weatherizing homes. As a practical matter, in order to assure a sufficient number of laborers to work on weatherization projects, DOE personnel would have been required to coordinate closely with the Department of Labor (DOL), which administers the CETA program. In fact, DOE, DOL, and the Community Services Administration (CSA) signed a Memorandum of Understanding (MOU) in 1977 defining the responsibilities of the three signatory agencies in connection with the weatherization program.

Second, in many cases DOE personnel have initiated coordination activities with other Federal program personnel both within and outside DOE. This coordination has been initiated in response to the realization that other Federal programs provide similar energy conservation services which support the attainment of energy conservation goals.

For instance, several of the energy conservation programs described in this report coordinate with each other because of the similar nature of the services they provide and the target audiences they service. This kind of coordination is essential in order to avoid program duplication, ensure consistency in program requirements, reduce paperwork requirements, and take advantage of past program experience.

The programs described in this report have established both formal and informal coordinating mechanisms with other offices within DOE. In many cases this coordination is predicated on the nature of the services provided by those offices. In others, the coordination has been established to take advantage of program similarities and to share mutually informative experiences.

For instance, SECP personnel work closely with the Energy Information Administration (EIA). Since EIA has the primary DOE responsibility for collecting and analyzing energy data, the SECP program office will coordinate with EIA in order to validate energy savings reported by the States to have resulted from their energy conservation programs.

Finally, all the programs described in this report have established cooperative ties with other Federal agencies. For example, the National Bureau of Standards (NBS) is involved with several of the programs described in this report. NBS provides technical data on materials standards to WAP, serves on the RCS Working Rules Group, and conducts research into various aspects of urban waste, providing valuable data to UW concerning the composition and efficient disposal of waste. Program coordination thus allows the collective expertise of various Federal agencies to be made available to specific energy conservation programs.

Third, there are a large number of energy conservation efforts in different Federal agencies providing a range of services to target audiences, and in many cases these agencies are not coordinating their activities with one another. Rather, they supply a specific energy conservation service to a specific target audience. The lack of coordination between these activities is not necessarily a drawback, since an attempt to coordinate small-scale efforts in different Federal agencies might detract from the resources available to provide services, especially in the case of activities with small budgets. However, more complete understanding of the wide range of services provided by the various Federal energy conservation programs could make the activities more effective.

Therefore, even though there may be no need to establish formal mechanisms to coordinate the whole array of Federal energy conservation activities, a common information source may be desirable. This report, together with the Comprehensive Program and Plan for Federal Energy Education, Extension, and Information Activities, may serve usefully as the basis for that transfer of information.

Finally, this report concludes that the number of Federal energy conservation programs involving State and local governments may lead to State and local uncertainty as to which program provides which service as well as to increase the burden of administrative paperwork facing State and local governments. NECPA extended the authorization for the SECP through FY 1979; therefore, it is anticipated that this will be the final year of the program in its present form. To this end, planning is currently underway to develop legislation which will consolidate and retain some of the activities of the SECP and combine them with the EES.

On July 10, 1978, the State Energy Management and Planning Act (SEMP) was introduced in Congress. In addition to consolidating the SECP and the EES, the bill would have enabled States to develop and strengthen their energy planning and management capabilities. Hearings were held, but Congress adjourned before the legislation could be enacted. Since adjournment of the 95th Congress, efforts have been undertaken to develop new State planning and management legislation which will be introduced soon.

This new legislative initiative, known as the Energy Management Partnership Act (EMPA), will consolidate and retain some of the activities of the SECP and combine them with the EES. In addition, EMPA would reduce and simplify the administrative requirements imposed on States to obtain financial assistance for State energy conservation programs administered by DOE.

APPENDIX A

AGENCY:	PROGRAM OFFICE:
ACTION	Office of Policy and Planning

PROGRAM NAME:

Energy Conservation

OBJECTIVES:

- To demonstrate new ways in which local voluntary activity may lead to increased access to services on behalf of the poor
- To demonstrate innovative ways of energy conservation in which voluntary activities respond to the needs of the poor and serve as models for new Federally-assisted volunteer programs

DESCRIPTION OF PROGRAM:

- Provides voluntary services to low-income persons by emphasizing energy conservation through the application of alternative/appropriate technology
- Funds State and local voluntary energy conservation programs to mobilize people to conserve energy
- Uses volunteers to train low-income persons in energy conservation methods and the use of weatherization assistance

TARGET AUDIENCE:

- Low-income persons

SERVICES:

- Appropriate Technology
- Weatherization
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$ 65,000	$ 65,000
FY 79	$150,000 (est.)	$150,000 (est.)

AGENCY: ACTION	**PROGRAM OFFICE:** Older Americans Volunteer Program (OAVP)

PROGRAM NAME: Retired Senior Volunteer Program (RSVP)

OBJECTIVES:
- To create meaningful opportunities for persons age 60 and over to participate more fully in the life of their communities or nearby communities through volunteer service

DESCRIPTION OF PROGRAM:
- Creates meaningful volunteer opportunities for persons age 60 and over
- Operates as a source of volunteers to address community needs in a wide variety of areas
- Provides energy conservation services through volunteers who are involved in activities such as teaching energy conservation courses, providing advice on home insulation, monitoring environmental projects, and conducting energy audits

TARGET AUDIENCE:
- Elderly

SERVICES:
- Energy audits
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$20,100,000	$100,500
FY 79	$15,400,000 (est.)	$ 77,000 (est.)

AGENCY: ACTION

PROGRAM OFFICE: Domestic Operations VISTA/ACTION Education Programs

PROGRAM NAME: Volunteers in Service to America (VISTA)

OBJECTIVES:

- To strengthen and supplement efforts to eliminate poverty and poverty-related problems in the United States by encouraging and enabling voluntary service that aids in the reduction of poverty

DESCRIPTION OF PROGRAM:

- Encourages people to perform meaningful and constructive volunteer service for the benefit of the poor
- Provides energy conservation services through volunteers who assist in winterization and insulation, through education efforts to teach energy-saving methods, in job training and placement, in greenhouse cooperatives, and in legal areas concerning utility rates and pollution standards
- Incorporates participation of low-income persons in the decision-making process, as well as in implementation of projects

TARGET AUDIENCE:

- Low-income persons

SERVICES:

- Education
- Weatherization

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$22,852,000	$457,040
FY 79	$30,022,000	$600,440 (est.)

AGENCY: COMMUNITY SERVICES ADMINISTRATION (CSA)	PROGRAM OFFICE: National Center for Appropriate Technology
PROGRAM NAME: National Center for Appropriate Technology (NCAT)	

OBJECTIVES:

- To develop solutions to the energy problems of low-income persons through the use of appropriate technology
- To promote social, economic, and technical self-reliance in low-income communities
- To generate awareness of appropriate technology alternatives in the U.S.
- To encourage decentralized, community-based application of small-scale technologies

DESCRIPTION OF PROGRAM:

- Evaluates technologies and designs proposed for CSA's energy programs
- Develops guidelines and technical specifications for selecting/implementing technologies
- Grants funds for R&D (e.g., improving heat source efficiency, developing low-energy cooling and ventilation, and reducing insulation cost through improved manufacturing techniques)

TARGET AUDIENCE:

- Low-income persons

SERVICES:

- Technical assistance
- Grants
- Training
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$3,300,000	$3,300,000
FY 79	Not Available	Not Available

AGENCY: COMMUNITY SERVICES ADMINISTRATION	PROGRAM OFFICE: Office of Community Action, Energy Division

PROGRAM NAME: Emergency Energy Conservation Services

OBJECTIVES:
- To promote energy conservation and lessen the impact of high energy costs on low-income individuals and families

DESCRIPTION OF PROGRAM:
- Conducts advocacy programs to assist the poor in public, administrative, and legal proceedings involving energy costs, energy policy, and rate regulations
- Includes crisis intervention assistance in the forms of grants and payment guarantees; mediation with utility companies or fuel suppliers; financial counseling; consumer information, education, and legal assistance; projects designed to address the energy-related increased cost of transportation for the poor; and development and application of alternative energy technologies

TARGET AUDIENCE:
- Low-income individuals, families

SERVICES:
- Weatherization
- Education
- Financial counseling

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$263,500,000	$1,800,000 (est.)
FY 79	$210,000,000 (est.)	$4,000,000 (est.)

AGENCY:

COMMUNITY SERVICES ADMINISTRATION

PROGRAM OFFICE:

Office of Community Action, Energy Division

PROGRAM NAME:

Consumer Protection and Education

OBJECTIVES:

- To improve the quality, delivery, and pricing of energy-related goods and services used by low-income persons

DESCRIPTION OF PROGRAM:

- Develops mechanisms for enforcing the rights of energy consumers in a way that meets the needs of low-income people
- Provides effective programs of energy conservation and education which will enhance the effectiveness of physical conservation measures applied to dwellings through adoption of energy conservation practices by residents
- Through a national demonstration program, assists public schools in low-income areas to conserve energy, reduce utility costs, and teach energy conservation as a part of school curricula

TARGET AUDIENCE:

- Low-income persons

SERVICES:

- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$257,000	$257,000
FY 79	$500,000 (est.)	$500,000 (est.)

AGENCY: DEPARTMENT OF COMMERCE (DOC)	PROGRAM OFFICE: Bureau of Field Operations (BFO), Industry and Trade Administration

PROGRAM NAME: Energy Conservation Outreach and Promotion

OBJECTIVES:
- To provide information on energy conservation related programs affecting State and local governments and business communities

DESCRIPTION OF PROGRAM:
- Informs business community on voluntary energy conservation matters
- Promotes energy conservation
- Assists in development of energy management plans
- Assists policymakers in times of business emergency caused by energy crises
- Provides counseling sessions, seminars and conferences, and technical information upon request

TARGET AUDIENCE:
- State and local governments
- Private sector

SERVICES:
- Information dissemination
- Planning
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	Not Available	Not Available
FY 79	Not Available	Not Available

AGENCY:

DEPARTMENT OF COMMERCE (DOC)

PROGRAM OFFICE:

Office of Policy and Plans, Maritime Administration

PROGRAM NAME:

Maritime Industry Associations Conservation Programs

OBJECTIVES: • To increase industry awareness of the need for energy conservation, and to weigh methods for improving energy management

DESCRIPTION OF PROGRAM: • Discusses energy legislation and impact on maritime industry

- Provides feedback on industry energy conservation accomplishments
- Provides exchange of energy conservation methodologies
- Sponsors semi-annual formal meetings with industry association representatives
- Provides association members with energy-related materials

TARGET AUDIENCE:

- Waterway operators
- Shipbuilding and ship repair industry
- Port industry
- Stevedore industry

SERVICES:

- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	Not Available	Not Available
FY 79	Not Available	Not Available

AGENCY: DEPARTMENT OF COMMERCE (DOC)	PROGRAM OFFICE: Office of Policy and Plans, Maritime Administration
PROGRAM NAME: Maritime Training Advisory Board (MTAB)	

OBJECTIVES:
- To eliminate maritime industries energy waste
- To develop means for meeting the needs of different operating technologies
- To optimize energy input/output ratios

DESCRIPTION OF PROGRAM:
- Emphasizes energy conservation in all maritime training schools

TARGET AUDIENCE:
- Maritime training schools

SERVICES:
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	Not Available	Not Available
FY 79	Not Available	Not Available

AGENCY: DEPARTMENT OF COMMERCE (DOC)	PROGRAM OFFICE: Office of Sea Grants, National Oceanic an Atmospheric Administration (NOAA)

PROGRAM NAME: National Sea Grant College Program

OBJECTIVES:
- To provide assistance to persons responsible for the development, management, and use of ocean and coastal resources

DESCRIPTION OF PROGRAM:
- Makes matching grants, primarily to universities and colleges, for marine and Great Lakes research, education, and advisory services
- Assists in the improvement of fishing industries management practices, training, and education

TARGET AUDIENCE:
- Consumers living in coastal and Great Lakes States

SERVICES:
- Information Dissemination
- Grants
- Research
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$31,700,000	$8,000,000
FY 79	$35,000,000	$10,000,000 (est.)

AGENCY:

DEPARTMENT OF COMMERCE (DOC)

PROGRAM OFFICE:

Office of Technical Assistance, Economic Development Administration (EDA)

PROGRAM NAME:

Technical Assistance

OBJECTIVES:

- To simulate economic growth, generate employment opportunities, save threatened jobs and improve the standard of living in economically depressed areas of the U.S.

DESCRIPTION OF PROGRAM:

- Conducts feasibility studies of new approaches to economic development
- Conducts comprehensive studies of an areas' human resources and how to best use them
- Addresses community problems, including energy conservation
- Provides grants to communities, universities, and government agencies
- Provides for local users' participation in program planning

TARGET AUDIENCE:

- State and local governments
- Public/private non-profit organizations

SERVICES:

- Technical assistance
- Grants
- Planning
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$12,000,000	$500,000
FY 79	$15,000,000 (est.)	$250,000 (est.)

AGENCY:

DEPARTMENT OF COMMERCE (DOC)

PROGRAM OFFICE:

Office of Development Organizations,
Economic Development Administration

PROGRAM NAME:

Professional Services Program

OBJECTIVES:

- To aid local communities and industries in energy conservation

DESCRIPTION OF PROGRAM:

- Assists in the development of energy conservation programs and the use of alternate energy sources
- Establishes an information interchange network for all Economic Development Administration districts in U.S.

TARGET AUDIENCE:

- Local governments
- Communities
- Industry

SERVICES:

- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$250,000	$250,000
FY 79	$250,000 (est.)	$250,000

AGENCY: DEPARTMENT OF COMMERCE (DOC)	**PROGRAM OFFICE:** Office of Technical Assistance, Economic Development Administration
PROGRAM NAME: University Center Program	

OBJECTIVES:

- To help business and industry increase productivity, improve management, and improve and expand operations

DESCRIPTION OF PROGRAM:

- Funds 26 operating University Extension Centers aimed at business and industry outreach
- Reacts through University Extension Centers to business firms' defined needs, including energy conservation

TARGET AUDIENCE:

- Business communities

SERVICES:

- Grants
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$3,000,000	$150,000
FY 79	$3,000,000 (est.)	$100,000 (est.)

AGENCY:

DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:

Office of State and Local Programs, Conservation and Solar Applications

PROGRAM NAME: State Energy Conservation Program (SECP)

OBJECTIVES:
- To provide states with the means to establish and implement energy conservation programs with the goal of reducing State energy growth by five percent of the demand projected for 1980

DESCRIPTION OF PROGRAM:
- Established by Energy Policy and Conservation Act (EPCA) of 1975, as amended by Energy Conservation and Production Act (ECPA) of 1976 and the National Energy Conservation Policy Act (NECPA) of 1978
- Assists States in planning and implementing energy conservation programs.
- Requires mandatory program measures (lighting efficiency standards; thermal efficiency standards; carpool, vanpools and public trnasportation programs; Government procurement practices standards; right turn on red legislation; public education; effective intergovernmental coordination; and energy audits)

TARGET AUDIENCE:
- States and territorial jurisdictions
- General public

SERVICES:
- Grants
- Planning
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	[illegible],540,000	$71,540,000
FY 79	$57,800,000	$57,800,000

AGENCY:	PROGRAM OFFICE:
DEPARTMENT OF ENERGY (DOE)	Office of State and Local Programs, Conservation and Solar Applications

PROGRAM NAME:

Weatherization Assistance Program

OBJECTIVES:
- To reduce the impact of rising energy costs on low-income families by improving the thermal efficiency of their homes
- To save energy currently wasted in older, less energy efficient homes by weatherizing 1.1 million homes by 1981 (saving 0.016 quads per year)

DESCRIPTION OF PROGRAM:

- Provides funds to weatherize (e.g., insulate, weatherstrip, caulk, etc.) homes of low-income families, particularly the elderly and handicapped

TARGET AUDIENCE:
- Low-income familes

SERVICES:
- Grants
- Technical assistance
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 79	$198,950,000	$198,950,000

AGENCY:	PROGRAM OFFICE:
DEPARTMENT OF ENERGY (DOE)	Office of State and Local Programs, Conservation and Solar Applications

PROGRAM NAME:

Schools, Hospitals, and Local Government and Public Care Institutions Program

OBJECTIVES:
- To provide support and resources to schools, hospitals, and local government and public care institutions for energy conservation measures

DESCRIPTION OF PROGRAM:
- Provides grants to States to conduct preliminary energy audits and energy audits in eligible buildings
- Provides grants for technical assistance audit programs and energy conservation measures

TARGET AUDIENCE:
- Schools
- Hospitals
- Local governments
- Public care institutions

SERVICES:
- Grants
- Technical assistance
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 79	$95,000,000	$95,000,000

AGENCY:
DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:
Office of State and Local Programs
Conservation and Solar Applications

PROGRAM NAME: Energy Extension Service (EES)

OBJECTIVES:
- To encourage individuals and small establishments to reduce energy consumption and convert to renewable energy sources
- To provide feedback to DOE and other decisionmakers regarding institutional and technological barriers to the adoption of energy-saving measures
- To help reduce the impact of fuel shortages and price increases on small consumers by developing a technical assistance and information program that facilitates the adoption of energy-saving measures

DESCRIPTION OF PROGRAM:
- Emphasizes State planned and operated programs which provide personalized services to small energy users
- Provides grants of $1.1 million each to 10 pilot States
- Provides $30,000 each to remaining States and territories to observe pilot program progress and to prepare for a possible nationwide program

TARGET AUDIENCE:
- State and local governments
- General public

SERVICES:
- Technical assistance
- Grants
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 77	$7,500,000	$7,500,000
FY 78	$7,500,000	$7,500,000
FY 79*	$15,000,000*	$15,000,000*

*Program is restricted to the FY 78 level pending Congressional approval of the evaluation report of the pilot program.

AGENCY:
DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:
Office of Buildings and Community Systems, Conservation and Solar Applications

PROGRAM NAME:
Residential Conservation Service Program

OBJECTIVES:
- To identify and encourage installation of energy conservation measures in private residences

DESCRIPTION OF PROGRAM:
- Requires major electric and gas utilities to offer on-site energy audits to their residential customers, to identify appropriate energy conservation and solar energy measures, to estimate the costs and savings likely to result from implementation of these measures, and to offer to arrange for their installation and financing
- Requires utilities and home heating suppliers to charge their customers for the cost of installation, rather than include the costs in general utility rates

TARGET AUDIENCE:
- General public

SERVICES:
- Audits
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	NA	NA
FY 79	$4,000,000*	$4,000,000

*Funds pending in FY 79 supplemental request

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Buildings and Community Systems, Conservation and Solar Applications
PROGRAM NAME: Urban Waste Program	

OBJECTIVES:

- To develop and improve technologies that reprocess waste into fuels, metals, glass, paper, ammonia, glucose, fertilizers, and other energy-intensive products

DESCRIPTION OF PROGRAM:

- Provides financial and economic incentives for public and private organizations to develop demonstration projects
- Assist project participation organizing planning for, and managing their projects

TARGET AUDIENCE:

- General Public
- Local governments

SERVICES:

- Grants
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 79	$13,500,000	$13,500,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Buildings and Community Systems, Conservation and Solar Applications

PROGRAM NAME:

Community Systems Program

OBJECTIVES: • To assist communities to develop and put into practice effective community-wide energy conservation programs

DESCRIPTION OF PROGRAM: • Provides grants for community programs

• Provides information regarding state-of-the-art community systems

TARGET AUDIENCE:
- General public
- Utilities
- Local governments

SERVICES:
- Grants
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 79	$19,400,000	$19,400,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Small-Scale Technology, Conservation and Solar Applications

PROGRAM NAME:

Appropriate Technology Small Grants Program

OBJECTIVES: ● To provide grants to individuals, small businesses, local nonprofit groups, and State and local governments for the development of small-scale, energy related technologies that could be produced by local skills in response to local needs.

DESCRIPTION OF PROGRAM:

- Encourages ideas relevant to appropriate technology
- Offers small grants (up to $50,000) for
  - Development of inventions
  - Supporting studies
  - Demonstration

TARGET AUDIENCE:

- State and local governments
- General public

SERVICES:

- Grants
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$3,000,000	$3,000,000
FY 79	$8,000,000	$8,000,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Buildings and Community Systems, Conservation and Solar Applications
PROGRAM NAME: Project Conserve	

OBJECTIVES: • To achieve 20 percent reduction in the annual fuel bills for participating homes

DESCRIPTION OF PROGRAM: • Updated Project Conserve I obtains energy-use pattern data from homeowners via questionnarie, processes data by computer, analyzes potential improvement costs and fuel-cost savings, and returns analysis to homeowners within six weeks; analysis includes "do-it-yourself" and contractor costs for suggested improvement, estimate of cost and energy savings potential, and payback period for each suggested action

- Provides technical assistance to States in starting up Project Conserve through SECP

TARGET AUDIENCE: • Single-family dwellings and mobile homes

SERVICES:

- Energy audits
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$60,000	$60,000
FY 79	$40,000 (est.)	$40,000 (est.)

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Division of Geothermal Energy, Energy Technology

PROGRAM NAME: Geothermal Energy Information Program

OBJECTIVES: • To foster the development and support of the geothermal industry and its technology so that geothermal energy can be commercialized as an economic, reliable, and environmentally acceptable energy source

DESCRIPTION OF PROGRAM: • Serves as link to transfer current geothermal technology information to interested parties

- Uses distribution lists to disseminate information to geothermal community
- Provides government documents, publications, reports, news releases, newsletters, exhibits, and film television tapes
- Conducts meetings, symposiums, and workshops

TARGET AUDIENCE:

- Geothermal community
- State and local government personnel
- Industrialists
- General public

SERVICES:

- Information dissemination
- Education
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$475,000	$475,000
FY 79	$390,000 (est.)	$390,000 (est.)

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME:

Energy Analysis and Diagnostic Centers (EADC)

OBJECTIVES:
- To aid small industrial firms in improving energy efficiency

DESCRIPTION OF PROGRAM:
- Provides direct assistance to small industrial firms in auditing, analyzing, and correcting processes and practices for improving energy efficiency

TARGET AUDIENCE:
- Small businesses

SERVICES:
- Energy audits
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$150,000	$150,000
FY 79	$360,000	$360,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME: Energy Efficiency Sharing

OBJECTIVES:
- To transfer energy conservation know-how from companies with effective energy management programs to those firms in the same local area who need this type of information

DESCRIPTION OF PROGRAM:
- Helps organize, provides support to, and conducts seminars and assistance-training sessions hosted by energy-efficient companies

TARGET AUDIENCE:
- Private sector

SERVICES:
- Information dissemination
- Education
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	-0-	-0-
FY 79	$15,000	$15,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	**PROGRAM OFFICE**: Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME:

International Technology Sharing

OBJECTIVES:
- To identify and encourage adoption of foreign energy-efficient technologies by the U.S. business community

DESCRIPTION OF PROGRAM:
- Collects, screens, and disseminates information about foreign technology, techniques, and processes
- Provides catalogues, pamphlets, and booklets

TARGET AUDIENCE:
- Business community

SERVICES:
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$100,000	$100,000
FY 79	$115,000	$115,000

AGENCY:

DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:

Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME:

Publications/Audiovisual

OBJECTIVES:
- To provide, primarily to the business community, information explaining the need for energy conservation and management and specific technical how-to materials

DESCRIPTION OF PROGRAM:
- Develops, produces, and distributes materials fostering energy conservation
- Provides information explaining the need for energy conservation

TARGET AUDIENCE:
- Business community

SERVICES:
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$20,000	$20,000
FY 79	$20,000	$20,000

AGENCY:

DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:

Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME:

Trade Shows/Conferences

OBJECTIVES:

- To foster and promote energy conservation in the business sector by demonstration of existing assistance modes and materials dealing with all aspects of energy conservation from "promotional" material to direct technical material

DESCRIPTION OF PROGRAM:

- Participates in selected industrial trade shows and exhibitions, conferences, and symposiums

TARGET AUDIENCF:

- Private sector
- General public

SERVICES:

- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$20,000	$20,000
FY 79	$20,000	$20,000

AGENCY:	PROGRAM OFFICE:
DEPARTMENT OF ENERGY (DOE)	Office of Industrial Energy Conservation, Conservation and Solar Applications

PROGRAM NAME:

Voluntary Industrial Energy Conservation Programs (VIECP)

OBJECTIVES:

- To improve energy efficiency in terms of energy input per unit of output, and to identify and assist in transfer of appropriate technology

DESCRIPTION OF PROGRAM:

- Provides large-scale energy conservation reporting, monitoring, and technology transfer program

TARGET AUDIENCE:

- Trade associations
- Business community

SERVICES:

- Technical assistance
- Energy audits
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	Not Available	Not Available
FY 79	Not Available	Not Available

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of Buildings and Community Systems (BCS), Conservation and Solar Applications

PROGRAM NAME: Technology and Information Transfer Program

OBJECTIVES: • To develop commercialization and utilization plans for energy conservation technologies becoming available from current research efforts

DESCRIPTION OF PROGRAM: • Provides commercialization plans which identify target audiences and Federal government action for selected technologies resulting from BCS RD&D activity

• Disseminates information on existing conservation measures for buildings and communities

• Provides training for individuals involved in the construction, maintenance, and retrofit of buildings

TARGET AUDIENCE:
- Trade associations
- Building contractors
- Building related industries
- Building maintenance personnel
- Homeowners

SERVICES:
- Information dissemination
- Audits
- Manpower
- Technical assistance
- Training

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$720,000	$720,000
FY 79	$525,000	$525,000

AGENCY:
DEPARTMENT OF ENERGY

PROGRAM OFFICE:
Office of Small Business, Conservation and Solar Applications

PROGRAM NAME: Energy Partnership for American Cities

OBJECTIVES:
- To reduce energy consumption in small and medium sized commercial buildings

DESCRIPTION OF PROGRAM:
- Conducts energy surveys of small and medium sized commercial buildings
- Provides owners of commercial buildings or equipment with engineering survey results that could reduce energy consumption
- Monitors and encourages retrofit actions that could save energy in commercial buildings

TARGET AUDIENCE:
- Educational institutions
- Financial institutions
- State and local government
- General public

SERVICES:
- Energy audits
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	-0-	-0-
FY 79	$200,000 (est.)	$200,000 (est.)

AGENCY:

DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:

Office of Solar Applications and Commercialization, Conservation and Solar Applications

PROGRAM NAME:

Solar Development and Training Program

OBJECTIVES:

- To provide information, training, public education programs, and marketing activities to meet needs of the building community, the financial community, the utility community, the solar energy industry, and other sectors of the economy that can utilize solar technology

DESCRIPTION OF PROGRAM:

- Provides market development, technology transfer, and training activities designed to stimulate acceptance of proven solar technologies by industry
- Emphasizes solar heating of homes and small office buildings, solar heating and crop drying in small agricultural applications, and solar heating and cooling of commercial buildings

TARGET AUDIENCE:

- Financial community (e.g., lenders, appraisers, and insurers)
- Utility community (e.g., industry and regulatory bodies)
- Solar energy industry

SERVICES:

- Education
- Technical assistance
- Training

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$2,000,000	$2,000,000
FY 79	-0-	-0-

AGENCY:

DEPARTMENT OF ENERGY (DOE)

PROGRAM OFFICE:

Office of Buildings and Community Systems, Conservation and Solar Applications

PROGRAM NAME:

Project Payback
(Energy Cost of Ownership Demonstration Program)

OBJECTIVES:

- To accelerate the acceptance of energy efficient products by working with the private sector (particularly retailers) in testing communications methods which increase the consumers' awareness and knowledge of the "energy cost of ownership" concept

DESCRIPTION OF PROGRAM:

- Conducts market research demonstration program to increase consumer awareness of the "energy cost of ownership" concept
- Conducts demonstrations involving DOE, private sector participants, and State and local energy offices

TARGET AUDIENCE:

- General public

SERVICES:

- Energy audits
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$ 400,000	$ 400,000
FY 79	$1,750,000	$1,750,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Division of Transportation Energy Conservation (TEC), Conservation and Solar Applications

PROGRAM NAME: Car and Driver Fuel Economy Program

OBJECTIVES:
- To educate and motivate drivers to use fuel-efficient techniques and strategies in their automobile purchase, operation, and maintenance

DESCRIPTION OF PROGRAM:
- Demonstrates how motorists can increase fuel economy and reduce fuel costs at no additional expense and yet obtain increases in safety and reliability
- Markets and disseminates driver fuel economy workshop/classroom materials
- Offers an expansion of the "National Fuel Economy Challenge" (a driving competition which demonstrates fuel economy and is jointly sponsored by the Department of Energy and the Sports Car Club of America)

TARGET AUDIENCE:
- General Public

SERVICES:
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$18,000	$18,000
FY 79	$45,000	$45,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Division of Transportation Energy Conservation (TEC), Conservation and Solar Applications

PROGRAM NAME: Electric Vehicle Demonstration Program

OBJECTIVES:
- To demonstrate in an actual working situation the value of electric vehicles

DESCRIPTION OF PROGRAM:
- Places into operation small fleets of electric vehicles
- Provides assistance on a cost-sharing basis for the purchase and operation of electric vehicles
- Informs vehicle operators and the public of the performance of the demonstration vehicles

TARGET AUDIENCE:
- Government officials
- Private fleet operators
- General public

SERVICES:
- Grants
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$ 5,000,000	$3,000,000
FY 79	$12,000,000 (est.)	$9,500,000 (est.)

AGENCY:	PROGRAM OFFICE:
DEPARTMENT OF ENERGY (DOE)	Division of Transportation Energy Conservation (TEC), Conservation and Solar Applications

PROGRAM NAME: Fuel Economy Information Program

OBJECTIVES:
- To encourage the prospective automobile buyer to purchase more fuel efficient cars

DESCRIPTION OF PROGRAM:
- Provides prospective new car purchasers with fuel economy information on all models of each automobile manufacturer's new car fleet
- Provides consumers with an evaluation of measures for increasing consumer knowledge and acceptance of the government's fuel economy standards

TARGET AUDIENCE:
- General public
- Fleet purchasers

SERVICES:
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$ 873,000	$ 873,000
FY 79	$1,045,000	$1,045,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Division of Transportation Energy Conservation (TEC), Conservation and Solar Applications
PROGRAM NAME: Ridesharing Technical Assistance	

OBJECTIVES:

- To increase the occupancy of cars and vans used in commuting

DESCRIPTION OF PROGRAM:

- Involves information transfer and analysis relating to commuters sharing rides in vans and cars
- Coordinates with other Federal agencies in ridesharing policies and program issues
- Disseminates information to States, employers, and other interested groups
- Assists in the development of a Federal employees vanpool program

TARGET AUDIENCE:

- States, local ridesharing programs, large employers, and individuals who are potential vanpool owners/operators

SERVICES:

- Information dissemination
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$15,000	$15,000
FY 79	$25,000	$25,000

AGENCY: DEPARTMENT OF ENERGY (DOE)	PROGRAM OFFICE: Office of State Specific Programs within Office of State and Local Programs, Conservation and Solar Applications
PROGRAM NAME: Used Oil Program	

OBJECTIVES:

- To provide assistance to States, local government, and civic and community organizations in designing and implementing programs to recover otherwise wasted used oil
- To provide information regarding feasible and practical alternatives for reprocessing used oil

DESCRIPTION OF PROGRAM:

- Encourages recycling (e.g., re-refining or reprocessing) of used oil

TARGET AUDIENCE:

- State and local governments

SERVICES:

- Technical assistance
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	Not Available	Not Available
FY 79	Not Available	Not Available

AGENCY:
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE (HEW)

PROGRAM OFFICE:
Office of Facilities Engineering

PROGRAM NAME: Energy Conservation in Facilities

OBJECTIVES:
- To conduct special projects concerning energy consumption in Federal and non-Federal facilities

DESCRIPTION OF PROGRAM:
- Offers services of HEW regional engineers for evaluation and technical assistance
- Conducts feasibility studies on energy use and conservation (e.g., cogeneration, use of solid wastes) for universities and hospitals, and evaluates physical plants

TARGET AUDIENCE:
- Universities
- Hospitals and health care facilities

SERVICES:
- Research
- Grants
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$100,000	$100,000
FY 79	$200,000	$200,000

AGENCY:
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE (HEW)

PROGRAM OFFICE:
Office of Education

PROGRAM NAME:
Energy and Education Action Center

OBJECTIVES:

- To provide technical assistance and information to schools, post-secondary energy conservation in educational facilities
- To encourage and support the in-service training of teachers, administrators, and other members of the education community in areas dealing with energy awareness and understanding, conservation, and environment

DESCRIPTION OF PROGRAM:

- Helps implement energy conservation practices in school facilities
- Promotes development of supplementary materials for energy and education
- Coordinates joint programs and activities in energy and education with other Government departments and agencies at local, State, and Federal levels

TARGET AUDIENCE:

- Colleges and universities
- Administrators
- Public and private educational institutions

SERVICES:

- Technical assistance
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$275,000	$275,000
FY 79	$275,000	$275,000

AGENCY:
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE (HEW)

PROGRAM OFFICE:
Administration on Aging, Policy and Planning Division

PROGRAM NAME: Older Americans Act Programs, Program on Aging

OBJECTIVES:

- To develop comprehensive, coordinated social service programs for older Americans by awarding grants to designated local units through State units on aging
- To increase social services for the elderly by integrating social service planning and delivery

DESCRIPTION OF PROGRAM:

- Requires State and local agencies to submit plans for eligibility
- Incorporates participation of the elderly in planning through local agency advisory committees and public hearings
- Provides various social services to the elderly, such as assistance in repairing, maintaining, and modifying residences for thermal efficiency and energy conservation

TARGET AUDIENCE:

- Elderly

SERVICES:

- Weatherization
- Planning

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$$287,200,000	Not Available
FY 79	$287,200,000	Not Available

AGENCY:

DEPARTMENT OF HOUSING AND URBAN
DEVELOPMENT (HUD)

PROGRAM OFFICE:

Office of Policy Development and Research
Division of Energy, Building Technology
and Standards

PROGRAM NAME: Solar Heating and Cooling Demonstration Program

OBJECTIVES:
- To encourage the use of solar technology in the general housing market

DESCRIPTION OF PROGRAM:
- Develops performance criteria and certification procedures for solar heating and cooling equipment
- Shares joint responsibility with DOE for a residential demonstration program investigating practical applications of solar heating and cooling
- Conducts marketing efforts encouraging rapid and widespread acceptance by housing industries of solar technologies
- Disseminates demonstration and market development results

TARGET AUDIENCE:
- Architects
- Planners
- Builders
- Homeowners

SERVICES:
- Information dissemination
- Education
- Demonstration

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$26,000,000	$5,000,000
FY 79	$16,400,000 (est.)	$5,000,000 (est.)

AGENCY:
ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROGRAM OFFICE:
Office of Research and Development (R&D), Energy Systems Environmental Control Division

PROGRAM NAME: Waste as Fuel

OBJECTIVES:
- To develop a process for waste utilization that incorporates energy recovery
- To promote the utilization of this process

DESCRIPTION OF PROGRAM:
- Develops processes for waste utilization with energy recovery

TARGET AUDIENCE:
- Industry
- Other Federal agencies

SERVICES:
- Information dissemination
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$3,160,000	$95,000 (est.)
FY 79	$1,805,000 (est.)	$65,000 (est.)

AGENCY:	PROGRAM OFFICE:
ENVIRONMENTAL PROTECTION AGENCY (EPA)	Office of Solid Waste (OSW)

PROGRAM NAME: Resource Recovery Project Development Grants

OBJECTIVES:

- To accelerate the Nation's resource recovery process
- To provide environmentally sound alternatives to solid waste disposal
- To assist economically distressed urban areas in implementing resource recovery programs pursuant to the President's urban policy

DESCRIPTION OF PROGRAM:

- Evaluates, develops, demonstrates, and aids in the commercialization of technologies for resource recovery
- Supports feasibility analyses, procurement planning, and procurement of hardware for resource recovery facilities
- Provides annual grants to State and local authorities for feasibility analyses, procurement planning, and procurement
- Provides information and grant applications in response to grant solicitations
- Provides technical assistance, manuals, and pamphlets

TARGET AUDIENCE:

- State and local government

SERVICES:

- Grants
- Technical assistance
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	-0-	-0-
FY 79	$15,000,000 (est.)	$5,000,000 (est.)

AGENCY:

DEPARTMENT OF LABOR (DOL)

PROGRAM OFFICE:

Employment and Training Administration

PROGRAM NAME:

Comprehensive Employment and Training Act (CETA)

OBJECTIVES:

- To provide job training and employment opportunities for economically disadvantaged persons

DESCRIPTION OF PROGRAM:

- Provides labor for energy conservation projects
- Provides job training and employment opportunities for economically disadvantaged persons
- Funds local governments which administer programs within established CETA guidelines

TARGET AUDIENCE:

- Low-income persons

SERVICES:

- Technical assistance
- Funding
- Manpower

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$8,100,000 (act.)	$7,695,000 (est.)
FY 79	$8,900,000 (est.)	$8,455,000 (est.)

AGENCY: DEPARTMENT OF TRANSPORTATION (DOT)	PROGRAM OFFICE: Technology Sharing Division, Assistant Secretary for Governmental Affairs

PROGRAM NAME:

Technology and Knowledge Sharing

OBJECTIVES:

- To incorporate State and local government transportation needs into the DOT R&D planning process
- To insure that DOT R&D results are being tailored and disseminsted to all appropriate user groups

DESCRIPTION OF PROGRAM:

- Provides direct technical assistance, both from departmental staff and through Transportation Systems Center
- Provides computerized transportation research information service
- Contracts with public interest groups and outside firms
- Conducts seminars, conferences, and training programs for State and local personnel

TARGET AUDIENCE:

- All State and local transportation oriented offices
- Elected and appointed officials and their staffs

SERVICES:

- Technical assistance
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$400,000	$100,000 (est.)
FY 79	$405,000	$100,000 (est.)

AGENCY:
GENERAL SERVICES ADMINISTRATION (GSA)

PROGRAM OFFICE:
Commissioner, Federal Supply Services

PROGRAM NAME: Federal Supply Service (FSS)

OBJECTIVES:

- To reduce vehicle miles travelled
- To decrease the use of limousines and heavier sedans
- To increase the acquisition of subcompact and compact cars
- To improve maintenance and driving techniques
- To promote waste recycling

DESCRIPTION OF PROGRAM:

- Provides vehicle management program to cause mileage reductions, decreased use of limousines and heavier sedans, increased acquisition of compact sedans, use of motor pools, driver education, and improved maintenance techniques
- Provides resource recovery product development to promote reuse of resources (e.g., wastepaper, waste oil, used tires, metals, and hazardous materials)
- Manages experimental technology project to test energy-intensive products (e.g., water heaters, air-conditioners, ranges, and freezers) for energy efficiency

TARGET AUDIENCE:

- All Federal agencies except DOD

SERVICES:

- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$168,144,000 (act.)	Not Available
FY 79	Not Available	Not Available

AGENCY: GENERAL SERVICES ADMINISTRATION (GSA)	PROGRAM OFFICE: Office of Buildings Management, Energy Conservation Division
PROGRAM NAME: Public Buildings Service (PBS)	

OBJECTIVES:
- To design all new Federal office buildings to be energy efficient
- To reduce the energy consumption inventory of all existing office buildings

DESCRIPTION OF PROGRAM:

- Performs new building design, retrofitting, and operational changes on existing buildings

TARGET AUDIENCE:
- Federal buildings

SERVICES:
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$13,400,000 (act.)	None
FY 79	$26,400,000 (est.)	None

AGENCY: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)	PROGRAM OFFICE: Office of Space and Terrestrial Applications, Technology Transfer Division

PROGRAM NAME: Technology Transfer Program

OBJECTIVES:
- To promote effective use, in both the public and private sectors, of new technology and other technical information generated by aerospace R&D programs

DESCRIPTION OF PROGRAM:
- Promotes effective utilization of new technology and other technical information generated by aerospace R&D programs
- Demonstrates ways to reduce home fuel consumption using aerospace and commercial building technology
- Supports national network of Industrial Applications Centers (i.e., computerized data bases) to identify, retrieve, and deliver pertinent technological information
- Provides technical expertise to solve user problems
- Maintains a technology demonstration house

TARGET AUDIENCE:
- General public
- Private sector

SERVICES:
- Information dissemination
- Technical assistance
- Demonstration

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$9,100,000 (est.)	$200,000 (est.)
FY 79	$9,100,000 (est.)	$100,000 (est.)

AGENCY: NATIONAL SCIENCE FOUNDATION	**PROGRAM OFFICE:** Intergovernmental Science and Public Technology

PROGRAM NAME: Intergovernmental Programs

OBJECTIVES: • To facilitate the intergration of scientific and technical resources into the policy formulation, management support, and program operation activities of State and local governments, thus increasing their capability to address issues and problems in such areas as energy, environmental management, pollution control, health, transportation etc.

DESCRIPTION OF PROGRAM: • Makes grants to individual State legislatures, governors' offices, and national State government organizations to test alternative mechanisms for using scientific and technical resources in policy formulation

• Supports three national networks of different sized local governments--Urban Consortium, Urban Technology Systems, and Community Technology Initiatives Programs--to strengthen their capability for solving problems by using scientific and technical resources

TARGET AUDIENCE:
- State legislators
- Governors and State executive agencies
- General purpose city and county governments and their chief executives or chief administrative officers

SERVICES:
- Grants
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$7,000,000	Not Available
FY 79	$5,000,000	Not Available

AGENCY:

U.S. DEPARTMENT OF AGRICULTURE (USDA)

PROGRAM OFFICE:

Science and Education Administration (SEA)

PROGRAM NAME: Cooperative Extension Service--50 States, Virgin Islands, Guam, Puerto Rico, and District of Columbia

OBJECTIVES:
- To provide individuals and the general public with information and education to make decisions on energy problems, energy conservation nologies related to family residences, farm operations, and agricultural business
- To reduce energy costs and consumption and to encourage the public to adopt an energy conservation ethic

DESCRIPTION OF PROGRAM:
- Provides education and information on efficiency of energy use and conservation, alternative energy sources, and socio-economic impacts associated with energy consumption and production
- Provides State Land-Grant University specialists to assist county agents in specific technical problems
- Establishes requirements for research with help from local government and community participants

TARGET AUDIENCE:
- Farmers
- Agriculture
- Industry

SERVICES:
- Education
- Weatherization

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$249,000,000	$5,400,000
FY 79	$253,000,000	$5,800,000

AGENCY: SMALL BUSINESS ADMINISTRATION (SBA)	**PROGRAM OFFICE:** Office of Management Information and Training

PROGRAM NAME:

Small Business Training Program

OBJECTIVES:
- To assist small business owners in reducing energy costs by providing training and counseling

DESCRIPTION OF PROGRAM:
- Provides training and counseling to small businesses in reducing cost of energy use
- Counsels on general topics, as well as on topics tailored to specific industry

TARGET AUDIENCE:
- Small businesses

SERVICES:
- Education
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$6,600,000	$60,000 (est.)
FY 79	$7,200,000 (est.)	$66,000 (est.)

AGENCY: SMALL BUSINESS ADMINISTRATION (SBA)	**PROGRAM OFFICE:** Technology Assistance Division

PROGRAM NAME:

Technology Assistance Program

OBJECTIVES:

- To help small businesses solve production-related technical problems
- To assist small businesses in implementing and using new or alternative technologies

DESCRIPTION OF PROGRAM:

- Helps small businesses solve technical problems and use new/alternative technologies
- Provides technical information available from other Federal agencies to small businesses
- Provides computer services for energy-saving measures and technical information and assistance
- Provides R&D procurement assistance and special studies

TARGET AUDIENCE:

- Small businesses

SERVICES:

- Technical assistance
- Information dissemination
- Education

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$1,000,000	$100,000 (est.)
FY 79	$ 900,000 (est.)	$ 90,000 (est.)

AGENCY: TENNESSEE VALLEY AUTHORITY (TVA)	**PROGRAM OFFICE:** Office of Power, Division of Energy Conservation, Conservation and Energy Management Branch

PROGRAM NAME: End-Use Electric Energy Management Program (Commercial and Industrial Loads)

OBJECTIVES:
- To reduce business and industry energy needs to the minimum levels required to efficiently produce a product or service

DESCRIPTION OF PROGRAM:
- Encourages effective management decisions to check and control energy consumption in business and industry
- Provides information and energy use inspections to businesses and to educational institutions
- Produces and distributes The Electric Management Program, a brochure which covers the steps required in setting up such a program

TARGET AUDIENCE:
- Business and industry
- Civic clubs
- Educational institutions

SERVICES:
- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$ 690,000	Not Available
FY 79	$4,000,000	Not Available

AGENCY: TENNESSEE VALLEY AUTHORITY (TVA)	**PROGRAM OFFICE:** Office of Power, Division of Energy Conservation, Conservation and Energy Management Branch

PROGRAM NAME: Certified Electric Heat Pump Installation Program

OBJECTIVES:
- To help eliminate three major problems which have damaged the reputation of heat pumps in the past: faulty units, poor installation, and inadequate servicing

DESCRIPTION OF PROGRAM:
- Utilizes certified dealers to demonstrate proficiency of heat pumps
- Inspects heat pump installations

TARGET AUDIENCE:
- Consumers

SERVICES:
- Technical assistance

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$156,000	$156,000
FY 79	$500,000 (est.)	$500,000 (est.)

AGENCY: TENNESSEE VALLEY AUTHORITY (TVA)	PROGRAM OFFICE: Office of Power, Division of Energy Conservation, Conservation and Energy Management Branch

PROGRAM NAME:

Consumers Communications Service for Distributors of TVA Power

OBJECTIVES: • To fulfill TVA's communications partnership responsibilities with the 160 local distributors of its power

- To provide information on energy conservation and electrical safety to TVA consumers

DESCRIPTION OF PROGRAM: • Prepares and produces advertising pamphlets and display materials on energy conservation and electrical safety

- Provides consumers of TVA power with information on energy conservation and electrical safety through TVA power distributors

TARGET AUDIENCE: • Consumers

SERVICES:

- Information dissemination

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$143,000	$135,000
FY 79	$217,000 (est.)	$210,000 (est.)

AGENCY: TENNESSEE VALLEY AUTHORITY (TVA)	PROGRAM OFFICE: Office of Power, Division of Energy Conservation, Conservation and Energy Management Branch
PROGRAM NAME: TVA's Home Insulation Program	

OBJECTIVES:

- To help consumers minimize electricity costs
- To offer interest-free loans for energy conservation

DESCRIPTION OF PROGRAM:

- Provides free home energy surveys to save energy and to lower utility bills
- Offers interest-free loans to consumers who heat and cool electrically to bring insulation and other weatherization measures up to proper standards
- Offers low-interest loans for installing an electric heat pump to consumers who have weatherized their homes

TARGET AUDIENCE:
- General public

SERVICES:
- Energy audits
- Grants

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$2,400,000	Not available
FY 79	$3,300,000 (est.)	Not available

AGENCY: VETERANS ADMINISTRATION (VA)	PROGRAM OFFICE: Director of Engineering Service, Department of Medicine and Surgery

PROGRAM NAME: Energy Conservation Program

OBJECTIVES:
- To conserve energy in a cost effective manner in VA hospitals

DESCRIPTION OF PROGRAM:
- Provides cost-effective energy conservation in VA health care facilities
- Provides energy reporting system identifying types and cost of fuel for each facility
- Identifies and implements potential facility energy conservation methods
- Transfers successful technology between facilities

TARGET AUDIENCE:
- VA health care facilities (e.g., hospitals)

SERVICES:
- Technical assistance
- Planning

BUDGET:

		Amount for Energy Conservation/ Renewable Fuels Outreach
FY 78	$20,400,000 (act.)	None
FY 79	$20,196,000 (est.)	None

APPENDIX B

AGENCY	PROGRAM	Education	Energy Audits	Grants	Information Dissemination	Planning	Technical Assistance	Training	Weatherization
ACTION	Energy Conservation	X							X
	Retired Senior Volunteer Program (RSVP)		X		X				
	Volunteers in Service to America (VISTA)	X							X
COMMUNITY SERVICES ADMINISTRATION (CSA)	National Center for Appropriate Technology			X	X		X	X	
	Emergency Energy Conservation Services	X							X
	Consumer Protection and Education	X							
DEPARTMENT OF COMMERCE (DOC)	Energy Conservation Outreach and Promotion	X			X	X			
	Maritime Industry Associations Conservation Programs	X			X				
	Maritime Training Advisory Board (MTAB)	X							
	National Sea Grant College Program	X		X	X				
	Technical Assistance			X	X	X	X		
	Professional Services Program	X			X				
	University Center Program	X		X	X				

AGENCY	PROGRAM	Education	Energy Audits	Grants	Information Dissemination	Planning	Technical Assistance	Training	Weatherization
DEPARTMENT OF ENERGY (DOE)	State Energy Conservation Program (SECP)			X		X	X		
	Weatherization Assistance Program	X		X	X		X		X
	Schools, Hospitals, and Local Government and Public Care Institutions Program	X		X			X		
	Energy Extension Service	X		X			X		
	Residential Conservation Service Program		X		X				
	Urban Waste Program			X			X		
	Community Systems Program			X			X		
	Appropriate Technology Program			X	X				
	Project Conserve			X			X		
	Geothermal Energy Information Program	X			X		X		
	Energy Analysis and Diagnostic Centers		X		X				
	Energy Efficiency Sharing	X			X		X		
	International Technology Sharing				X				
	Publications/Audiovisual				X				
	Trade Shows/Conferences				X				
	Voluntary Industrial Energy Conservation Programs		X		X		X		
	Technology and Information Transfer Program		X		X		X	X	
	Energy Partnership for American Cities		X				X		

AGENCY	PROGRAM	Education	Energy Audits	Grants	Information Dissemination	Planning	Tehcnical Assistance	Training	Weatherization
DEPARTMENT OF ENERGY (DOE)	Solar Development and Training Program	X					X	X	
	Project Payback (Energy Cost of Ownership Demonstration Program)	X	X						
	Car and Driver Fuel Economy Program	X			X				
	Electric Vehicle Demonstration Program	X		X	X				
	Fuel Economy Information Program				X				
	Ridesharing Technical Assistance				X		X		
	Used Oil Program				X		X		
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE (HEW)	Energy Conservation in Facilities			X			X		
	Energy and Education Action Center	X			X		X		
	Older Americans Act Programs, Program on Aging					X			X
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)	Solar Heating and Cooling Demonstration Program	X			X				
ENVIRONMENTAL PROTECTION AGENCY (EPA)	Waste as Fuel				X		X		
	Resource Recovery Project Development Grants			X	X		X		

AGENCY	PROGRAM	Education	Energy Audits	Grants	Information Dissemination	Planning	Technical Assistance	Training	Weatherization
DEPARTMENT OF LABOR (DOL)	Comprehensive Employment and Training Act (CETA) Program			X			X		
DEPARTMENT OF TRANSPORTATION (DOT)	Technology and Knowledge Sharing	X					X		
GENERAL SERVICES ADMINISTRATION (GSA)	Federal Supply Service						X		
	Public Buildings Service						X		
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)	Technology Transfer Program				X		X		
NATIONAL SCIENCE FOUNDATION	Intergovernmental Programs			X			X		
U.S. DEPARTMENT OF AGRICULTURE (USDA)	Cooperative Extension Service	X							X
SMALL BUSINESS ADMINISTRATION (SBA)	Small Business Training Program	X			X				
	Technology Assistance Program	X			X		X		

AGENCY	PROGRAM	Education	Energy Audits	Grants	Information Dissemination	Planning	Technical Assistance	Training	Weatherization
TENNESSEE VALLEY AUTHORITY (TVA)	End-Use Electric Energy Management Program (Commercial and Industrial Loads)				X				
	Certified Electric Heat Pump Installation Program						X		
	Consumers Communications Service for Distributors of TVA Power				X				
	TVA's Home Insulation Program		X	X					
VETERANS ADMINISTRATION (VA)	Energy Conservation Program					X	X		

Mr. **Davis**. Have I read the report?

Senator **Ford**. Yes, sir.

Mr. **Davis**. I have not read the report, no, sir.

Senator **Ford**. I think if you would read this report to the Congress on all these conservation programs, State and local governments, you might just have it all in one little package already, to give you a little headstart on that.

Let me ask you also, are you in agreement with the General Accounting Office's comments on additional cost-saving measures as it relates to energy conservation?

Mr. **Davis**. I am not prepared to speak to that, sir. I have not reviewed those.

Senator **Ford**. Well, you have had 6 months. You are not prepared to comment on GAO's report as it relates to energy conservation?

Mr. **Davis**. I am not prepared to comment on it today. If you wish, we can supply some comments.

Senator **Ford**. You are not concerned with GAO's report as it relates to energy conservation?

Mr. **Davis**. I'm sorry, sir, I didn't say that. I said I have not had the opportunity or reason to review that. I have not done so, and if you would like comments from the Department, we can provide them.

Senator **Ford**. I would hope then, Mr. Davis, that you would look at GAO's report, "Comments on the President's February 18, 1981 Budget Proposals and Additional Cost-Saving Measures." It is March 3, 1981, OPP-81-2, and it is headed, "President's Proposed Energy Conservation," and it would be in the overall prospectives, paragraph 3.

[The material referred to by Senator Ford follows:]

U.S. GENERAL ACCOUNTING OFFICE: COMMENTS ON THE PRESIDENT'S FEBRUARY 18, 1981, BUDGET PROPOSALS AND ADDITIONAL COST-SAVING MEASURES

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ENERGY CONSERVATION

GAO SUPPLEMENTARY DISCUSSION

The administration proposes to make widespread and substantial cuts in energy conservation programs. After an overall comment, the following elements are discussed below; energy conservation tax credits, building and appliance standards, the Residential Conservation Service and public information programs, grants for State energy offices, incorporation of low-income weatherization assistance with HUD's block grant program, internal Federal Government conservation efforts, the Schools and Hospitals Grants Program, and electric and hybrid vehicles.

Overall perspective

GAO View.—GAO agrees with the administration's position that progress has been made in reducing total energy demand over the past few years and that energy price increases have been a primary factor. However, three significant factors also need to be recognized when deciding on the type and level of Federal commitment to conservation programs. First, energy conservation is in the best interests of the Nation—often in excess of the value indicated by market prices. Second, energy conservation can make a direct contribution to reducing the Nation's dependence on imported oil. Third, significant potential to increase the efficiency of energy use continues to exist.

In the years following the Arab embargo, the Nation further increased its dependence on imported oil—despite substantial price increases—thus failing to alleviate the Nation's vulnerability to supply disruptions. GAO believes this situation, coupled with significant potential for increasing the efficiency of energy use of up to 50 percent in buildings alone, indicates a continued Federal need to facilitate and supplement market forces by alleviating the high level of dependence on imports and assuring that increased energy conservation is achieved in a timely manner.

While GAO's past work has identified a number of problems in DOE's implementation of energy conservation programs, GAO does not believe the solution is to eliminate or substantially reduce resources committed to these efforts. Rather, there is a need for (1) corrective action to assure that certain ongoing programs are effectively and efficiently implemented and (2) more selectivity in identifying further Federal involvement to assure that Federal resources are directed where they can most effectively contribute to the achievement of greater energy conservation, particularly with respect to reducing the level of imports.

Relevant GAO Reports.—EMD-78-38, EMD-79-76, EMD-80-7, and EMD-81-8.

GAO Contact.—William C. Oelkers, 252-1400.

Energy conservation tax credits

GAO Views.—GAO has supported tax credits in the past to provide an incentive for consumers to achieve energy conservation opportunities. GAO has had some concern, however, over the administration's proposal to rely, for the most part, on market forces and tax credits to achieve energy conservation. Such a proposal is not likely to result in substantial near-term energy savings, and the Federal Government will need to play an important role in fostering greater energy conservation.

The Federal Government should continue to supplement market forces to assure substantial energy savings. The last 2 years' experience with the existing residential tax credit indicates that selective use has been made of the credit, even though energy prices continued to rise during that period and significant opportunities exist to cost-effectively save energy. For example, the tax credit was used more often for relatively inexpensive conservation measures. In addition, higher income households were more likely to take advantage of the credit.

Given the apparent selected impact of the credit, significant potential to save energy (estimated at up to 50 percent for homes), and the need to promptly achieve these savings in view of the continued high level of imports, GAO believes that the Federal Government should reassess the contribution being made by its ongoing energy conservation programs and continue, in a more selective manner, to facilitate and supplement market forces in the area of energy conservation.

Relevant GAO Report.—EMD-77-48.

GAO Contact.—William C. Oelkers, 252-1400.

Building and appliance standards

GAO Views.—In a recent report on the Building Energy Performance Standards program, GAO pointed out that such standards would close the gap between achieving cost effective energy conservation practices and the level of energy conservation which would be achieved by market forces. Such a gap exists because of imperfections in the market. For example, consumers do not have precise knowledge of how future energy prices should effect current energy conservation decisions or what energy conservation actions are needed to maximize cost effectiveness.

The report also addressed the question of establishing mandatory standards by establishing a sanction for noncompliance. It stated that, since energy prices had risen substantially, homeowners and builders had a strong incentive to implement energy conservation measures, although a lack of awareness concerning maximum cost effective energy conservation practices would remain. Thus, while a manadatory standard may not be justified, establishing a voluntary standard could facilitate market forces by identifying the optimal level of energy conservation that could be cost effectively achieved.

With respect to appliance efficiency standards, GAO previously supported establishing major appliance standards. Since that time, some States have established appliance standards. If that trend continues, failure to establish Federal standards could result in appliance manufacturers being forced to comply with a number of different standards for their products. Thus, Federal standards would help to assure a level of uniformity in the aplicance standard area as well as to assure that energy-efficient appliances are produced.

While the administration proposal does not indicate what action, if any, will be taken with respect to the appliance labeling area, that effort should continue to assure that consumers have appropriate information when making appliance purchase decisions.

Related GAO Report.—EMD-81-2.

GAO Contact.—William C. Oelkers, 252-1400.

The residential conservation service and public information programs

GAO Views.—GAO recently reported on residential energy conservation outreach activities, including the energy conservation opportunities in the residential sector, its needs in order to voluntarily achieve such potential, the most effective manner of meeting those needs, and the appropriate DOE role.

The administration's proposes to abandon the Residential Conservation Service (RCS) on the basis that utilities themselves will respond to consumer needs when conservation represents an economic alternative. This proposal fails to recognize the timely and important contribution energy conservation can make in the Nation's energy program and the potential role RCS can play in achieving voluntary residential conservation. Because individual utilities face vastly different demand, supply, and cost situations, it is likely that the administration's strategy would result in a fragmented assortment of residential conservation programs—unequal in application, quality, or comprehensiveness. Ultimately, this strategy could lead to many years of delay in closing the gap between energy conservation achieved and energy conservation opportunities still available.

The report indicated that if consumers are not effectively made aware of their conservation opportunities, the extent to which they can or will voluntarily realize available energy savings will be limited. Comprehensive, on-site energy audits—a central feature of the RCS program currently underway nationwide—have been shown to be the most effective way to encourage voluntary conservation actions. While GAO has not yet examined the regulatory burden RCS has imposed on utilities, States, or the private sector, the program's on-site audit features, scope, and timing raise serious concerns about eliminating this program prematurely.

The report supports the administration's general position that many DOE information program efforts are contributing little to meet the needs of consumers—especially in light of non-Federal activities. However, DOE can make a timely and significant contribution to achieving greater levels of voluntary conservation, specifically by playing an important role in enhancing the success of the RCS program through selectively reducing and refocusing current outreach programs. In particular, the Energy Extension Service program, if implemented consistent with congressional intent, could be the vehicle to assure that DOE outreach funds are expended efficiently and effectively toward this restructured effort.

Relevant GAO Report.—EMD-81-8.

GAO Contact.—William C. Oelkers, 252-1400.

Grants for State energy offices

GAO Views.—Pursuant to specific legislative mandate, GAO has issued two reports on DOE's State Energy Conservation Program and is currently involved in a third review. GAO concluded that the 1980 energy savings goal will not be attained and that implementation of many State conservation measures were delayed or reduced in scope because of problems in establishing and administering the measures and overly ambitious and optimistic goals.

Although the specific amount of energy conserved as a result of the program is unknown and questionable at this moment, the program has been effective in terms of developing—for the first time—a capability to manage energy programs in many States. Loss of Federal funds may cause some States, because of budget constraints, to eliminate State energy offices, resulting in a loss of this management and coordination capability at the State level.

This loss would affect not only the conservation area, but would also affect the States' growing responsibilities in emergency response planning activities, such as gasoline supply distribution.

Relevant GAO Reports.—EMD-78-81 and EMD-80-97.

GAO Contract.—William C. Oelkers, 252-1400.

Incorporation of low-income weatherization assistance into HUD's block grant program

GAO Views.—Pursuant to specific legislative mandate, GAO has issued two reports on DOE's low-income weatherization program and is currently involved in a review of the program. Among the principal problems noted has been slow progress because of problems in obtaining sufficient labor through the Comprehensive Employment and Training Act (CETA) program. DOE revised its regulations and funding to allow the hiring of labor or contractors.

GAO concluded that the low-income weatherization program could go a long way toward reducing the utility bills of people least able to afford them. In view of the recent deregulation of oil prices, GAO believes that the need for such a program is even more acute in order to lessen the impact of rising fuel prices on low-income persons. Also, the more successful the low income weatherization program is in reducing energy costs, the less Federal funds should be necessary for the Community Service Administration's crisis intervention program to pay the fuel bills of low-income persons.

GAO has no strong views as to whether the program should be in DOE or HUD. There are advantages and disadvantages to location in either department, which are discussed below. Some concerns about the administration's justification for transferring the program to HUD are also discussed below.

An advantage to the administration's proposal is that many units need rehabilitation in addition to weatherization, and merger with the HUD program could provide this. However, there are the following disadvantages to the proposal:

Under merger, weatherization would lose its identity and priority. In past reports, GAO has taken the position that it was desirable to place energy functions in one agency with overall responsibility to insure that such functions receive proper priority within a single department.

Possible negative effect on rural areas and small towns, as the block grant program is primarily for big cities.

Possible negative effect on ability of low-income persons to weatherize if local community elects loans rather than grants.

As discussed below, GAO questions the statements given by the administration to justify the transfer of the program to HUD.

The program will be more in accord with local needs and priorities. DOE's program is carried out by granting funds to the States which subgrant funds to local community action agencies. Each State is responsible for developing and monitoring its program. Since, under the DOE program, both the State and its local communities are involved, it is unlcear how the program would be more in accord with local needs under HUD.

The DOE program has been plagued by increasing costs and quality control problems. GAO has found that part of the increases in cost is a result of the shift from free CETA labor to hired or contractor labor. It seems that cost increases and quality control problems will not disappear by changing agencies.The proposed reduction in the CETA program will likely result in higher costs for labor in the low income weatherization program.

The DOE program would take 50 to 100 years to reach all the potentially elibible low-income households in the Nation. The speed with which weatherization can be accomplished will primarily be influenced by the availablity of labor, materials, and funds. Based on the current DOE limit of $1,600 per unit and the estimated 10 million low-income units needing weatherization, about $16 billion would be required to accomplish the task. Unless funding of weatherization under the block grant program is significantly increased, it is not reasonable to assume that HUD could accomplish the task in a period of time significantly less than DOE.

Relevant GAO Reports.—EMD-78-81, EMD-80-59, and EMD-80-134.

GAO Contact.—William C. Oelkers, 252-1400.

Internal Federal Government conservation efforts

GAO Views.—The Federal Government is the Nation's largest single energy user, directly accounting for over 2 percent of U.S. energy consumption. Thus, the Government has a unique opportunity to save large amounts of energy and lead the Nation by demonstrating, within its own domain, an aggressive energy management program.

GAO has supported the need for a comprehensive aggressive energy conservation program is the Federal Government. Although past work has disclosed that the Government's in-house energy conservation program is in disarray, the problems appear to stem from DOE's failure to take charge and provide the necessary support.

In view of the significant future energy and cost savings that a viable and effective Federal Energy Management Program could bring to the Federal Government, GAO applauds the administration's stated intention that the Government's internal conservation effort "would be retained."

Relevant GAO Reports.—EMD-80-11, EMD-79-11, and EMD-79-68.

GAO Contact.—William C. Oelkers, 252-1400.

Schools and hospitals grants program

GAO Views.—The administration proposes to retain the Schools and Hospitals Program but at a reduced rate of $100 million.

GAO recently reported on the Energy Conservation Program for Schools and Hospitals. The program has been authorized nearly $1 billion to provide grants to institutions to reduce energy use. Schools and hospitals are major consumers of energy and through effective conservation efforts, they can reduce their energy consumption by as much as 30 percent. GAO found that there is an opportunity to reduce overall program costs while at the same time increase energy savings.

The Schools and Hospitals Program is not an effective use of Federal funds when compared to other DOE energy conservation programs. It is among the highest in cost, yet among the lowest in yielding energy savings. GAO recommended that the focus of the program needs to be redirected toward placing more emphasis on energy audits, providing energy audits to more schools and hospitals, and more closely matching the assistance provided to the needs of schools and hospitals.

The administration's proposed reduction in program funding and GAO's recommendation would complement each other and serve to increase the program's cost-effectiveness.

Relevant GAO Report.—EMD-81-47.

GAO Contact.—William C. Oelkers, 252-1400.

Electric and hybrid vehicles

GAO Views.—The administration proposes to terminate a number of technology development projects based on the rationale that such projects are commercially viable without Federal assistance. Among these projects is the electric and hybrid vehicle (EHV) project. From the available information, it is unclear whether all EHV efforts are to be terminated or simply the vehicle demonstration portion. EHV efforts also include loan guarantees and research and development. Depending on the extent of the planned cuts, GAO could support some of the cuts, but on a basis different from the rationale used by the administration.

In April 1979, GAO reported on the need to redirect DOE's electric vehicle efforts. Specifically, it was recommended that DOE (1) postpone private-sector and State and local government-sector demonstrations, substituting instead a smaller Federal demonstration and (2) delay issuance of loan guarantees for vehicle and component production. These recommendations were based on an assessment that vehicles available at that time cost too much and delivered such inferior performance that commercialization could not reasonably be expected. Available information suggests that the same deficiencies still exist with respect to the vehicles being demonstrated in the Federal efforts. Even General Motors, which previously announced entry into the electric vehicle market by 1984, seems to be backtracking; recent announcements indicate a later date for entry with "significant" quantities possibly by 1990. Accordingly, it still seems prudent at least to defer Federal support of private-sector and State and local Government-sector demonstrations. This support represents about $10 million in the fiscal year 1981 budget. It also seems prudent to terminate the loan guarantee efforts, which represent an additional $1.4 million in the fiscal year 1981 budget.

However, it does not seem prudent to terminate the research and development efforts. For EHVs to be commercialized, significant technical advances are required. To the extent that the Government research and development program is helping to resolve technological barriers, terminating these efforts could delay implementation of this oil-saving technology.

Relevant GAO Report.—EMD-79-6.

GAO Contact.—Thomas E. Melloy, 353-5711.

SOLAR ENERGY AND CONSERVATION BANK

GAO SUPPLEMENTARY DISCUSSION

GAO Views.—The Solar Energy and Conservation Bank was created by the Energy Security Act (P.L. 96-294, June 30, 1980). Although GAO has not yet specifically reviewed the Bank's activities, based on previous work on solar energy, GAO has some thoughts on the proposal to eliminate the Bank.

The Administration's rationale for this proposal is that rising energy prices and existing tax credits for solar energy systems will provide sufficient incentive for using solar energy systems, and that additional Federal incentives are, therefore, not needed to promote the use of solar energy. The Bank, as established, can subsidize the interest individuals pay in connection with purchasing solar energy systems; however, the act precludes an individual taxpayer from receiving the benefits of both this interest subsidy and the tax credits.

The solar energy tax credits were recently increased to 40 percent by the Windfall Profits Tax Act of 1980 (P.L. 96-223, April 2, 1980). On the surface, it appears that tax credits will be the preferred incentive since the interest subsidy will result in a much smaller dollar benefit to a taxpayer. GAO's past work on Federal efforts to commercialize solar heating indicated that interest subsidies may not be as effective an incentive as tax credits.

However, GAO cautions that, as noted in a report on solar heating, the success of the tax credits or other incentives should be periodically examined. The full impact of the new 40-percent solar tax credit and the decontrol of oil will not be known for some time. It may turn out that an additional incentive, such as that offered by the Bank, may still be needed if the Federal Government wishes to accelerate the widespread use of solar energy to reduce the Nation's dependence on imported energy supplies. When more is known on the impact of the decontrol and tax credit measures the Congress will have better information on which to decide whether to abolish or initiate operations of the Bank. Until more is known, a more prudent action may be to defer—as opposed to eliminate—funding the Bank.

Relevant GAO Report.—EMD-79-19.

GAO Contact.—Thomas E. Melloy, 353-5711.

ALTERNATIVE FUELS ACTIVITIES

No additional funding is requested in fiscal year 1982 for these activities. However, since most of these funds were made available late in fiscal year 1980 and required the issuing of regulations and competitive solicitations, program activities are being conducted in fiscal year 1981 and will continue in fiscal year 1982.

The President's policy would eliminate duplicate synfuels programs at Department of Energy and at the Synthetic Fuels Corporation. Shifting the Department's synthetic fuel commercialization and demonstration activities to the Synthetic Fuels Corporation will provide a more efficient and focused program for demonstrating synthetic fuel production. Encouraging synthetic fuel production through the Synthetic Fuels Corporation instead of through the Department of Energy reduces the likelihood that the synthetic fuels promotion will become a major budget burden in the future and provides project funding certainty.

This change will alter the Department's past involvement in major technical demonstrations. DOE will focus its support on long-range related research and development. This emphasis is consistent with the Administration's policy to rely on private market forces to set the pace of commercial introduction of synthetic fuels technologies with the assistance of the SFC.

The Administration is proposing to rescind $300 million for feasibility studies and cooperative agreements under the second round of solicitations. The first round awards have been made and will not be affected.

Also, the Administration is rescinding the unobligated balance of the $745 million provided to the Department of Energy for financial assistance to alcohol fuels, other biomass, and municipal waste activities, together with the unobligated balance remaining from the $525 million provided to the Department of Agriculture for assistance to small alcohol fuels and biomass projects. Tax credits will continue, which, in the case of alcohol fuels, will result in a subsidy of over $18 per barrel.

Senator FORD. I think this flies in the face of what you are saying to us today.

Now we are talking about being against regulations, but yet you are going to set up some guidelines for the State basically to follow as it relates to these block grants. Did I understand you correctly?

Mr. DAVIS. What I said was that if upon examination it appeared to be some of the kinds of questions that were really there of the sort that Senator Bradley raised, then I would expect it would not be unreasonable for us to try to set up some guidelines that made sure that there was a proper understanding of what, "energy related," meant.

Senator FORD. What is the difference between guidelines and regulations?

Mr. DAVIS. I don't know that I have a legal definition for that.

Senator FORD. Not much, is it? If the boss puts them out, a fellow has hold of the purse strings?

Mr. DAVIS. I think they tend to have that effect.

Senator **Ford**. And if you put out guidelines, you have them report to the Department of Energy as I understood you a few moments ago?

Mr. **Davis**. The legislation calls for the report to be made to the Department of Energy.

Senator **Ford**. What if it is dismantled?

Mr. **Davis**. Then presumably some other agency would pick up the administration of the bill.

Senator **Ford**. Do you have any idea when you flush the Department of Energy where that will go?

Mr. **Davis**. Not at all.

Senator **Ford**. You are liable to land back anywhere in the Federal Government, and we go back to the original hodge-podge direction that this country had as it related to energy.

Mr. **Davis**. I think there is a very serious effort that is going to be made to try to ascertain what functions are critical and important, and where the most appropriate place for them to go is. I don't think it is going to be a "shot in the dark."

Senator **Ford**. Have you read the history or observed the history of what Congress has tried to do—Senator Domenici has much more background in this than I do, and my other colleagues, but I watched the attempt by the Congress to bring all of the energy-related agencies together in the form of ERDA as I recall, and then we went to the Department of Energy, and it was massive, and it has been shaken down now.

Now I am impressed with Secretary Edwards' effort to streamline and reorganize the Department of Energy. I have no problems with what he is trying to do. I think we are impressed with his recent purchases of oil for SPRO and his effort there. I think the vertical organization is much better than horizontal, but to just absolutely eliminate a department that is the focal point for direction of energy in this country, it seems awful hard for me to accept. If you don't have a department to report back to, then the block grants are even going to be looser than they appear now when you responded to the questions of my good friend from New Jersey. You said it is all right for the Governor to air-condition his mansion or prisons or we in Kentucky would stockpile coal outside the Governor's mansion. We may not air-condition it.

Mr. **Davis**. I think I said I would have a little trouble with the Governor air-conditioning his mansion.

Senator **Ford**. You won't have any trouble with him heating it, though, would you?

Mr. **Davis**. It depends on which Governor it is, sir.

Senator **Ford**. Now we get back to the problem when you give it out to the States. See which Governor—it is your Governor would it be all right, but my Governor, to heck with him. That is why we get into throwing it out to the States and put producing States in competition with consuming States, you get right back into the same problem that you were in before and you want to put us right back into that frying pan and I think you are wrong. I just can't understand why we have worked and labored to a point where we have been about to get a handle on things here, and I agree with Senator Weicker a while ago that we are still swimming in the backwash of the OPEC embargos, and all the problems we have seen there.

We are trying to get a handle on it, and I had some hope we were, but we are just dismantling everything, every attempt that has been made except the free and open market.

Now in your statement I want to ask you a question about that. "At the same time, free market forces are inspiring cost-effective conservation measures," and I want you to look at this one now and listen, "* * * the substitution of economically viable alternative sources of energy."

How much are we getting from the private sector in alternative sources of energy?

Mr. DAVIS. It is partly a definition of alternative sources of energy, but I think we are saying now at least there is a start on the synthetic fuels program which should be substantial.

Senator FORD. Tell me about Baytown when the Government pulled out. How far along is that going to go?

Mr. DAVIS. You are talking about EDS?

Senator FORD. I am talking about the liquid operation of Baytown. I understand that is about ready to go down the drain. The Government is about to pull out, notify them you are not going to comment on contracts. Government gets out and private enterprise doesn't care.

Mr. DAVIS. I guess I am not quite sure which project——

Senator FORD. SRC-I, you are trying to dismantle that one. That is the only solvent refined coal operation left in the country that doesn't have big oil in it, and you are trying to dismantle that, and it can't swim unless government helps.

Mr. DAVIS. I think our view on that is that the costs are very high.

Senator FORD. Sure. They are going to be high. Nobody ever doubted that. We are going to build some white elephants.

Mr. DAVIS. I think you build these kinds of plants with the expectation that the results will lead to something which can stand on its own feet economically. I am not aware in detail of what the analyses have been, but I know the judgment was that that project should not be supported.

Senator FORD. Is that right? I hadn't heard that out of the Department yet. The problem has been up here. Big oil and environmentalists are just about taking everything down. You think the fight over Conoco was for its oil production? It has the second largest control of coal in this country.

Mr. DAVIS. I am well aware of Conoco's coal concerns, yes.

Senator FORD. All right, sir. If you think that is the next phase, what is big oil doing? They are out getting all the coal reserves, but they are not ready, private enterprise is not ready to give the kind of synthetic fuels program we need. They don't have that ability without the help.

We tell them to take a lesson from the country to the north of us, their tar sands program. When the oil companies dropped out, the country picked up the tab, isn't that right? Surely you are familiar with that, and they are mass producing at $17 a barrel, and the Government has been paid off and they are out of it and are producing about one-fifth of their liquid energy needs of that country from that one operation.

Mr. **Davis**. I am quite familiar with the two tar sands projects, yes, sir.

Senator **Ford**. Do you agree with my statement or am I wrong?

Mr. **Davis**. I am not quite sure what the thrust of your statement was.

Senator **Ford**. I thought it was support of Government and private enterprise trying to get the synfuels program while private enterprise couldn't do it by themselves.

Mr. **Davis**. The tar sands projects were done by private industry.

Senator **Ford**. In Canada? I wish you would go back and read these things. We sit here and I take a briefcase home with me every night. I read everything, get up at 5 o'clock in the morning and try to put it together so I know what I am talking about.

I believe that if you will check it—I wish you would just read that and see if my statements are right or wrong.

Mr. **Davis**. As far as the tar sands projects are concerned, the question is what price will the Canadian Government allow for the product, that is, whether or not it would be allowed to compete at the world price of oil.

In the case of the second tar sands project, some of the provincial governments bought equity interest in the project, just as any other company would, so I think it is a pretty complex subject.

Senator **Ford**. It is only as complex as we make it, Mr. Davis. If we want to make something work—I have seen a lot of it work, and I am about ready to quit talking, but this just disturbs me to no end. Some of us have a very strong feeling about this country as it relates to its future and our own resources and our ability to defend and protect. Now when we have a little lull, we want to put it out on the street and the open market and let them dismantle it and dismantle everything we have done for the sake of getting government off our back.

Senator **Domenici**. Senator Ford, will you Chair?

Senator **Ford**. Yes, I will Chair. I will just keep him. How long do you want me to Chair?

Senator **Domenici**. I think Senator Warner will be here in a minute.

Senator **Ford** [presiding]. I will be glad to, but let me just say this. I think we are just giving up too much, just giving up too much. If we look at what is happening to us, I just can't believe that we want to give up what we have done, and in these block grants let me say to you in closing, I have been a Governor. Whether I was a good one or a bad one I don't know. We'll leave that to history, but I am seeing the greatest shift of responsibility in the history of this country. I am seeing the greatest transmission of responsibility financially this country has ever seen with no coordinated effort for those States and local communities to pick it up, and I am beginning to think—I heard the story about the three envelopes. Have you heard that one where the Governor was coming or the President was coming in and the outgoing President said there are three envelopes in the drawer over there. When you get into trouble and you don't have the answers, open the first one, so he got in trouble, so he opened the first one.

It said blame it on your predecessor. Boy, he blamed it on his predecessor until that wore out. When that wore out he was in trouble again and he went in and got the second envelope. It said blame it on Congress, so he blamed it on Congress for a while until that wore out, and boy, he was in trouble again so he got the third envelope and it said write three more envelopes.

Now what are you going to do? As I see it under the block grants you are going to blame your predecessor, and that is about to wear out. You are going to blame Congress, and that is going to wear out, and now you are going to blame the Governors because your programs are not working, and you don't have any idea of what is going to happen down there, and I am beginning to think you don't care as long as you reduce some expenditure up here and eliminate the direction the Government is taking.

It just is a sad day to me to see for the sake of trying to balance the budget that you are not going to be able to do—you gave too much too soon to too few in a tax cut, and if you are going to be big enough about it and be big folks, admit a mistake and get the revenue side worked out.

You know, maybe I let it out all at one time and I apologize to you, but it has been pent up in me for a long time and I am just not through. I am just beginning to warm up, but I think this is another vehicle to blame somebody with it. I think the Governors are being blamed now, and it is beginning to, it is beginning to take hold down here, and I think there is going to be a resurgence of problems when the local communities look at the Governors and say you failed us, and the failing is not really the Governors' fault.

When I left that office there was $300 million in surplus. We had done a pretty good job, and today you go down there and see how they are struggling and you wait until you see when the next session of the legislature in January tries to make the budget with the block grant. There is going to be a struggle for power. I am not sure that is good, and it is going to be just like I see here. It is all right to take care of milk but the hell with tobacco. It is all right to take care of sugar but to hell with peanuts, and as long as we are taking care of our own, as long as we take care of our own—this is a big country. We have all got a lot at stake, energy and defense. I remember sending the synfuels bills over to the House, twice. Never got them back, but the bill that came from the House was the Defense Production Act. There was some concern about the defense of this country.

I think we have lost that. We are spending a lot of money, spending a lot of money for the defense of this country, but we are not looking at what would happen if we really get in trouble and if we need that defense if what we take away from industry is supposed to feed the defense mechanism of this country.

I'm sorry, Mr. Chairman, but I had to let it get all out. As I said, I am just beginning to warm up, and I'm sure my budget chairman is going to have to——

Senator WARNER [presiding]. Your budget chairman is very anxious to make a few remarks.

Senator DOMENICI. I have been warmed up for a while, but it's your turn to spew.

Senator **Ford**. I was against my President and my party, as you know, as many times as I have been up for this, and I have voted basically for the programs being set up here because I want to give him a chance.

Senator **Domenici**. I think you voted for the tax cut, too, didn't you?

Senator **Ford**. Yes, sir.

Senator **Domenici**. Mr. Secretary, I want to thank you for coming up here. I understand the circumstances that brought you here. I hope you understand that we were here on a bill that has to do with low-income energy assistance and conservation, but it is quite appropriate with the President proposing the dismantling of the Department, and other things, that you would get questions totally unrelated to the bill, and I do thank you for coming.

Obviously we have a long way to go with reference to the budgetary implications of all of this. I would merely comment in one respect with reference to block grants; I would suggest to my good friend who has been a Governor that if you have 7 or 8 million dollars to spend in your State under a program such as this, 50 percent of it is going to be yours. A year from now if this program works and if you choose as Governor to heat your mansion instead of giving low-income people energy assistance, that is your prerogative. I would assume that the people would have something to say about it there, just as they do here. If you choose to air-condition a prison and have no money left to provide grants for weatherization, I would assume that you would not be in office very long wherever you are.

All those are rather incredible examples of the judgment that one must assume here would be exercised by Governors and the State legislatures. If you choose to pay utility bills because of Three Mile Island and put 50 cents of your money in for every dollar, and have no money left for conservation, or low-income energy assistance, I would assume the people of the State would respond and it would either be thought by them to be a good deal or a bad deal. I am not sure we make any better judgments when we try to treat everybody the same and dictate from on high, but having said that, I repeat, I very much appreciate your coming here and being with us for these two hours.

Senator **Ford**. Mr. Chairman, may I respond to that? In Kentucky if he air-conditioned the prison, he wouldn't be Governor very long.

Senator **Domenici**. I think that is probably right, but you could use the money for it anyway.

Senator **Ford**. I don't think he would ever get the contract.

Senator **Warner**. Senator Ford, are we ready in terms of your inquiry to turn now to the next panel?

Senator **Ford**. I'm ready.

Senator **Warner**. We thank Mr. Davis and his colleagues.

Mr. **Davis**. Thank you.

Senator **Ford**. I probably should have stayed in bed!

Senator **Warner**. We will now have a panel of State and local government officials—Edward A. Helme, staff director, National Governors Association; Mark I. Croke, legislative representative, National Association of Counties; Sam R. Sperry, energy director for the city of Seattle, Wash., speaking on behalf of the National League of Cities.

Gentlemen, we welcome you. We will ask Mr. Helme to lead off. We understand that your statements in their entirety will be placed in the record, and we would hope, therefore, in view of what has transpired and the hour upon us, that you might consider bringing to the attention of the committee the high points.

Mr. HELME. Thank you, Mr. Chairman. I will be happy to do so.

STATEMENT OF EDWARD A. HELME, STAFF DIRECTOR, NATIONAL GOVERNORS' ASSOCIATION ENERGY AND ENVIRONMENT PROGRAM, ON BEHALF OF HON. JOSEPH BRENNAN, GOVERNOR OF THE STATE OF MAINE

Mr. HELME. I am Ed Helme. I am the staff director for the National Governors' Association energy and environment program. I am here today on behalf of Gov. Joseph Brennan of Maine who is the chairman of our Conservation and Renewable Resources Subcommittee. I just want to make several points. I think a lot of points have been covered already.

First, the Governors do strongly support block grants. We are supportive of S. 1544 as designed because we see it as a way to allow the States to target limited and scarce funds to the priority needs of the States in the area of energy conservation and renewable resources.

I would note that in February when the Governors met here in Washington for the winter meeting they were faced with a wide range of cuts in the energy and environmental area. This area of conservation programs was identified by the Governors as their top legislative priority. The feeling was that with the wide range of programs being cut at the State level, it was the top issue for us in terms of effect on citizens in the States.

Let me note there are several points, reasons why we felt conservation is so critical. First, it is our feeling that though market signals can help in terms of encouraging conservation with the higher prices and so forth, it is our view that nonetheless there is a need for adequate and accurate information if consumers are to make those decisions on what best conservation investments can be made.

Second, these programs have been very cost effective. Numerous studies have shown for every dollar invested in these programs, there has been a fivefold or greater return in terms of energy saved, actually saved out in the field.

Third, as has been emphasized by Senator Bradley's questioning, these programs are key to cushioning the impact on low-income residences of our State. It is a key need in energy with rising prices to take care of those needs.

Finally on the emergency side the States have been the first level of defense, and this set of programs has provided the funding for that work. I would take issue with Senator Weicker's comments about the States having failed in the area of emergency preparedness in dealing with shortages.

I think the record shows in GAO reports that the only level of government that has really dealt with shortages has been the State level. We feel it is a key area and the Governors are proud of it.

I would note one area in the legislation we do have some concern with, and that is where there is a call for the repeal of the existing categorical conservation program. We do not favor repeal of those programs. Our feeling is that the proper course is to amend those statutes to provide the needed flexibility, and I have got a list of fairly extensive suggestions in my testimony. I will just give a few of my points to give you a flavor for what we are interested in in this area, but we think the direction is not to repeal. You need to keep those guideposts for the States, and these are the areas we want to see this money focused on without telling in great detail how they have to do all the reporting and all the bureaucratic detail that currently exists—a couple of quick examples in terms of core programs.

The basic State energy conservation program, we would recommend that you take section 5 of S. 1544 and substitute that for the existing mandatory requirements that have been in there for a long time. Those include things like right turn on red, energy efficient procurement, mandatory lighting standards, that sort of thing, basically those things that have been achieved by the States. There is not a need to continually report every year on how you are keeping right turn on red signs up and so forth. It seems like a definite bureaucratic situation, and our feeling is that it should be replaced with a broader mandate from the States to be active in energy conservation.

Second, in the schools and hospitals program, our feeling is that this, too, has been somewhat bureaucratic with duplicative review of all applications for schools and hospitals being weatherized. States do it. The Feds do it. It doesn't make a lot of sense. That could be cleaned up by amendment to the statute and changing the regulations.

We also feel schools and hospitals—it is now a mandatory grant program—it is our feeling the States could do more with that money if they were given the flexibility to turn it into a loan program where they felt they could get the return from their schools and hospital administrative office and county government and so forth. We think the money could go a lot farther. We are facing drastic cuts in the total funding. We feel that makes a lot of sense to give the flexibility to use the loans.

In terms of the low-income assistance program, we again feel there is a need for some amendment here. There has not been enough emphasis on rental housing which is a key problem in conservation. We think a lot could be done in that area.

Second, we feel there is a need for—second, on low-income weatherization, we feel there is a need to allow the States to use money for furnace improvement. At present, you can't do that, under the existing regulations in the low-income weatherization program. In many areas that is the area where you could make the greater energy conservation savings, so I think to give you the basic flavor of our feelings, the existing programs need to be amended, not eliminated.

Let me close by giving you our key recommendations in terms of the legislation that is before you. First, we feel it is terribly important that the funding level be similar to what Congressman Tauke was recommending, at the level of $336 million which was agreed to in the reconciliation, and I note that 18 Governors have met with the President last Thursday and made a very clear statement. This includes the Republicans and Democrats. They said they would not support any further cuts in any of the programs proposed for block grants. That will include this set of programs.

Senator **Ford**. You understand this is $136 million less than the reconciliation?

Mr. **Helme**. That's right. We are proposing, we would like it to be $336 million, to go back to the level similar to what has been in the Weicker bill.

Second, on the question of State match, we would urge reduced match to 1982 because most of the States are already 3 months in fiscal 1982 and it would be very difficult to come up with the level of the match proposed here. We would support increasing the match in subsequent years. We proposed in the past 20 percent for the first year and increasing after that, and we continue to support that—just to suggest in 1982 it ought to be reduced to 15 percent.

Third, we would suggest that there is a need for a transition provision that allows the money appropriated for these categorical programs to be switched over to the block grants once a block grant is enacted. In the past that has been a tricky thing in a number of other grants. There is a need to give the Governor the choice of when he phases in the block grant authority and the bureaucrats can deal in the changes in the regs and so forth that will follow from a block grant legislative package.

On the question of repeal, again I just note again we would oppose repeal of the existing programs. We think amendments are the way to go, and finally, I note that we along with my colleagues here on the panel have strongly supported the inclusion of a local program to give mayors and local officials an opportunity to work in this conservation area where they do have strong skills and the opportunity.

I would note, however, that we would only support that with the funding level at 336, and we are faced with simply a $200 million program. That does not provide enough funding for a successful local program I don't believe.

I appreciate the opportunity and will be happy to answer questions when the panel is finished. Thank you, sir.

[The prepared statement of Mr. Helme follows:]

Testimony of
Ned Helme
Staff Director
National Governors' Association
Energy and Environment Program

Mr. Chairman, Members of the Committee, my name is Ned Helme and I am the Staff Director of the National Governors' Association Energy and Environment Program. I appreciate the opportunity to testify before you this morning on behalf of Governor Joseph Brennan, Chairman of the National Governors' Association Subcommittee on Energy Conservation and Renewable Resources.

The Governors, as you are aware, have long supported the consolidation and streamlining of the existing state energy grant programs to provide greater flexibility to the states in implementing energy programs. At the winter meeting of the Governors last February, the Governors identified funding for these programs as our principal priority among all of the Administration's proposed budget cuts in energy and environmental programs. The Governors recognized the need to reduce the federal deficit and were willing to accept a one-third reduction from the FY 81 appropriation level of funding for these programs -- provided that the funds were more flexible and that the regulatory and administrative burdens of the existing programs were reduced significantly. We see a consolidated energy block grant program, such as that contained in S. 1544, where the state could direct dollars to those measures which would be most cost-effective in that specific state,as the best way to maximize the value of the limited funds that may be available in this period of fiscal restraint. We commend you for taking an active interest in this area which is of great concern to the Governors.

The Continued Need for the State Conservation Programs

The Governors have selected the continued funding of the state energy conservation grant programs as our top priority for the following reasons:

o First, in a world of rapidly rising energy prices, state and local governments have served as the primary delivery mechanism for information and technical assistance necessary to consumers in taking energy saving actions. Although rising energy prices have increasingly motivated companies and individuals to seek energy conserving methods, many consumers do not have either the front-end funds or accurate information necessary to undertake cost-effective energy saving actions. States, through the State Energy Conservation Program (SECP) and the Energy Extension Service (EES) have been responding to these needs.

o Second, these programs have proven themselves cost-effective. Numerous studies have shown five fold or greater returns for every government dollar invested in the state programs.[1]

o Third, state-administered programs have targeted assistance to low-income individuals who feel the burden of rapidly rising energy costs more intensely. States are now moving to couple home energy audits under the Residential Conservation Service Program with the delivery of low-income weatherization.

o Fourth, the states have acted as the first line of defense in responding to fuel shortages. It is crucial to the health and safety of the people of this nation that the capacity at the state level to deal with major oil supply disruptions be further developed and maintained.

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[1] DOE State and Local Assistance Programs: 1980 Report, U.S. Department of Energy, Office of Conservation and Solar Energy, January 1981.

A further description of the state grant programs and examples of state efforts are included in the fact sheet attached to my testimony.

The Need for Consolidation

Mr. Chairman, as you know so well, our nation's energy problem is complex. It has defied any easy solutions. If this problem is to be resolved, if we are to free ourselves from undue reliance on unstable foreign supplies of energy, I believe that many different remedies should be pursued and many different approaches should be tested. The states should be encouraged to explore creative and innovative solutions to our common energy problem. States need the flexibility to develop state plans which are responsive to state concerns. This is important because states differ greatly in their energy sources and energy uses. Political, economic and social climates are equally varied. Federal programs that ignore these differences have limited effectiveness.

Examples of Needed Changes to Existing Programs

Overall, states should be permitted to submit a single grant application to receive funding under all six of the principal state conservation programs (EPCA, ECPA, EES, EECA, Weatherization, and Schools and Hospitals) with the flexibility to move funds freely among the six programs.

EPCA, ECPA, EES. The existing mandatory requirements under EPCA and ECPA are outdated and should be replaced with a broader mandate for state activity in energy conservation, emergency preparedness, renewable resources and technical assistance to local governments, industry, and individuals. Requirements such as right-turn-on-red have been fully implemented and merely consume state resources for reporting that could be used elsewhere. In addition, a more flexible mandate would allow states to move toward longer-term conservation efforts which have been discouraged because of the current program's emphasis on immediate energy savings.

The broader mandate would also allow states to take advantage of renewable resources opportunities which are especially suited to their particular climate and geography, and to couple these technologies appropriately with conservation measures. For instance, the state of North Carolina has actively pursued wood use for its residential home heating sector in a safe and environmentally sound manner. Idaho has a tremendous goethermal potential which it has been developing. Kentucky, Louisiana and many other states are pursuing gasohol, while solar has obvious possibilities in New Mexico and other sunbelt states. In the past, states have relied on a number of small federal grant programs to support these activities, including funding from Regional Solar Centers, Regional Commissions, and the Appropriate Technology Grant Program. As you know, these agencies and programs face significant cuts or elimination. The broader mandate approach to EPCA/ECPA and EES would allow this work to continue.

The consolidation of these programs into a single grant program would also allow states to organize their staffs more effectively. Current programs require states to account for staff time by program area rather than by staff background and expertise. For instance, the current programs discourage the states from organizing their offices by a more efficient sectoral approach. Rather than hiring a person with a technical background in building efficiency to deal with the state building code development efforts (a measure under SECP) and the state's realtor-builder program (an outreach program under EES) the state must hire separate individuals or account for the building engineer's time separately under the SECP and EES program. These requirements make it difficult for states to take a more comprehensive approach to conservation activities.

Institutional Conservation Program ("Schools and Hospitals"). While some regulatory improvements have been made in this program in the last year, it still remains an overly structured and regulated program. Ideally, it should be replaced with a requirement that states address, as a part of their efforts under the new consolidated program, the weatherization needs of schools, hospitals, and local government buildings. This would allow states to reach more institutions with audits and low-cost/no-cost measures rather than providing direct grants to all institutions for full-scale weatherization activities (Energy Conservation Measures (ECMs)). A recent GAO report suggests that audits may provide greater savings while reaching a broader number of institutions. States also might choose to put some funds into local government ECMs to encourage greater local government participation in the program. States could simplify the paperwork requirements for institutions, particularly for smaller rural institutions which do not have the staff capacity to deal with the current application requirements. The administrative burden could be reduced by eliminating the need for a federal review of each institution's application, in addition to the state review.

Beyond these changes, some states would undoubtedly consider converting the actual conservation improvements part of the program into a "refundable" grant program with institutions paying off improvements over time through a return of the fuel savings generated. In a period of fiscal restraint, this would leverage the funds to allow many more institutions to participate.

Low-Income Weatherization. There have been numerous attempts to improve the low-income weatherization program including recent legislative changes included in the Energy Security Act. These changes have been extremely beneficial. However, the program could still be improved significantly if greater flexibility is given to the states in a number of areas.

For instance, states should be allowed to devise alternative measures to address the needs of low-income individuals in rental housing. Rental housing is often excluded under the current weatherization program. Although an estimated 56 percent of eligible households live in rental units, only about 11 percent of the units weatherized in 1979 were rental units. Section 413(b)(2)B of the Act requires that "(i) the benefits of weatherization assistance in connection with leased dwelling units will accrue primarily to low-income tenants; (ii) the rents on such dwelling units will not be raised because of any increase in the value thereof due solely to weatherization assistance provided under this part; and (iii) no undue or excessive enhancement will occur to the value of such dwelling units." Landlords are reluctant to enter into agreements not to increase rents if improvements to a building are provided through weatherization assistance. In addition, often weatherization officials cannot obtain a right of entry to begin weatherizing a building due to a large incidence of absentee landlords.

Although DOE has attempted to deal with this issue through changes in regulations, weatherization of rental housing still remains a difficult problem.

States also should be allowed to make basic changes to the heating systems used by low-income residences. Although furnace improvements initially are often more costly, they often will provide much greater energy savings over the long run. As an example, the state may wish to remove or replace an unvented natural gas or propane space heater. All the caulking in the world will do little to off-set a basically old and inefficient heating unit.

Similarly, many states still view the $150 restriction on repair costs as overly restrictive. This limitation should be determined by the state. Many states would change the dollar repair cost limitation to a percentage of the total cost to weatherize a house.

Flexibility to effectively coordinate low-income weatherization with other state programs is essential. We believe that this Congress has taken a big step in the right direction by enacting the Low-Income Fuel Assistance Block Grant, which gives states the flexibility to spend up to 15% of their annual allocation for low-income weatherization. We believe that under this program, states will be able to continue to provide assistance to those individuals who cannot afford to pay their ever-rising fuel bills; and at the same time, begin to reduce the amount of money being spent each year on fuel payments by making one-time investments in low-cost energy-saving home improvements.

Similarly, greater flexibility within the existing federal weatherization program would, for example, allow states to apply technologies developed under the State Energy Conservation Program to low-income weatherization activities. For instance, states have been developing audit programs over the past five years under the SECP program which are state-specific, taking into account climatic variations such as humidity factors, sun incidence, etc. The current weatherization program does not provide for utilization of this type of state-specific audit but relies on nationally uniform standards.

These changes represent just a few of the changes that states feel could be made to the programs. We would be happy to work with your staff further in reviewing other necessary changes to the existing programs.

State and Local Energy Block Grant Act (S. 1544)

I would now like to comment briefly on the State and Local Energy Block Grant Act (S. 1544). We believe that the legislation proposed by Chairman McClure and Senator Domenici recognizes the importance of continuing energy conservation and supply activities at the state level, while providing the states with important flexibility to tailor these programs to their individual needs. We commend you Mr. Chairman, for developing this needed legislation. We do have some suggestions, however, about possible changes and additions to your bill which we feel would strengthen it.

First, we urge the Committee to consider increasing the $200 million authorization level proposed in S. 1544 to reflect the funding levels contained in the recently enacted Reconciliation bill, which reauthorized state and local conservation programs at a level of $336 million in FY 82, and at somewhat higher levels in FY 83 and FY 84. The $336 million already represents a substantial 30% cut from last year's funding level, and the Governors believe that a further reduction in funding to $200 million would severely hamper the effectiveness of these programs. Last Thursday, 18 Governors met with the President and urged that no further cuts be pursued for programs to be consolidated into block grants.

Second, the Governors have been on record for several years as willing to provide a 20% state match for any federal funds received under the state conservation programs. Recognizing the need for federal fiscal restraint, we feel that we could accept a gradually increasing match, up to 50%. However, it will be difficult, if not impossible, for many states to provide the 30% match required in S. 1544 for FY 1982, since most states are currently three months into their FY 82 budget cycle. In view of the massive across-the-board cuts in federal spending -- and the concommitant impacts of these cuts on the states -- we request the Committee to consider a reduced match requirement of 15% in FY 82, increasing gradually to 25% in FY 82, and 35% in FY 84.

Third, we would recommend that this Committee consider some legislative "fine-tuning", along the lines I indicated earlier in my testimony, as an alternative to repealing the existing categorical conservation programs. These have been strong and effective programs, and while it is clear that they need to be revamped and streamlined, complete repeal is probably not necessary. Instead, the Governors have recommended inclusion of two provisions; one requiring repeal of the existing regulations and their replacement with simplified flexible regulations; and one requiring only a single streamlined grant application and giving states clear authority to move funds flexibly among the existing programs. In addition, the list of allowable energy conservation and supply activities under Section 5 of S. 1544 could replace the mandatory requirements currently contained in Section 362 of the Energy Policy and Conservation Act (EPCA) (42 U.S.C. 6322) to provide a broader energy mandate for the states. The enabling legislation for both the "Schools and Hospitals" and low income weatherization programs should also be amended to provide needed flexibility and administrative streamlining.

Fourth, we would recommend that S. 1544 include a transition provision allowing states to convert funds currently available under the existing categorical programs to flexible block grant funds. This will allow states to take advantage of the administrative savings of the block grant approach as soon as possible thereby cushioning some of the adverse effects of the 30% reduction in federal support.

Finally, the Governors have joined the U.S. Conference of Mayors, the National League of Cities, the National Association of Counties, and the National Conference of State Legislatures in developing draft legislation which includes a small program for local government. We would urge you to consider increasing the level of funding in S. 1544 up to the level agreed to in Reconciliation to allow for the establishment of such a program for local governments, to be implemented through the states.

In closing, I would once again thank you for your interest in the state programs, for your introduction of S. 1544 and for providing us the opportunity to present our recommendations today. We would welcome the opportunity to work with you and your staff in further shaping the legislation. I will be happy to answer any questions you might have.

Senator WARNER. That was very clear.

Mr. Croke.

STATEMENT OF MARK I. CROKE, LEGISLATIVE REPRESENTATIVE FOR ENERGY AND ENVIRONMENT, NATIONAL ASSOCIATION OF COUNTIES

Mr. CROKE. My statement has also been submitted for the record. I will summarize my remarks.

NACo has many other organizations as this table shows, who supported the decontrol of energy prices believing that true energy prices would help conservation. I think as Mr. Davis noted in his remarks much of the reduction in imports has been due to those price increases.

However, we also recognized at that time and more so today that you can only respond to, you can only get an effective program due to pricing if people are able to respond to those price signals. Many State and local governments as well as many low-income and elderly individuals do not have the ability to respond to the signals. They feel them. They know the prices have risen, but they do not have the wherewithal to be able to respond effectively, and while many of the existing categorical grant programs Congress has put in place have helped ease that and were designed to help ease the transition to a decontrolled energy economy system for individuals and institutions, they have had many disadvantages in terms of lack of flexibility, being specifically targeted with a generalizing need to a national level and not being able to take into account unique State and local circumstances which while the needs are similar, they are different enough where flexibility would help a local government to implement a program using the dollars in a more effective way than generalizing at a national level ever possibly could.

While we support the concept behind S. 1544 of combining these programs into block grants, there are a couple of changes we would suggest in this proposal, specifically creation of a local segment providing the funding base of a minimum amount of approximately 20 percent of the overall funding which should go to city and county officials for implementation of energy conservation measures.

Again, as Mr. Helme noted, all of us at this table have been working together on such a proposal. We have done some preliminary drafting. We would hope that the committee would call upon us to continue to work with you in coming up with such a program.

Finally, one of the points that has been most vehemently, most widely debated this morning would be, I think we can summarize it best by saying, can the Congress, can we trust the State and local governments if we combine these programs into a block grant?

Mr. Bradley's line of questioning concerning air-conditioning prisons, the Governor air-conditioning his mansion, I think Mr. Domenici's remarks clearly reflect what our position on this would be. Any Governor or local official who decided to use those funds in such a clearly inappropriate way would not long survive in office. There seems to be an underlying assumption on the part of some members and many of the groups that I am sure you have heard from and will certainly hear from that somehow Congress is the only body that recognizes or hears the needs of the elderly and poor in the energy area and that State and local officials are somehow not responsive to the needs of these constituent groups within a community, and in fact, State, country, and local officials are somehow more venal, corrupt, or somehow genuinely unresponsive.

I think needless to say we resent that implication, and I think if you looked at the history of State and local governments in implementing energy conservation, both those mandated by the Federal Government and those initiated at local or State initiative, you will find that we have been very responsive, very creative, and given sufficient flexibility and again the financial wherewithal to do many of these things, I think you will find that the return will be even greater than it has been in the past.

In the interest of completing the panel quickly and getting on to what I assume will be more questioning, I will close my statement now and be ready to answer any questions.

[The prepared statement of Mr. Croke follows:]

STATEMENT OF MARK I. CORKE, LEGISLATIVE REPRESENTATIVE ON BEHALF OF THE NATIONAL ASSOCIATION OF COUNTIES ON ENERGY BLOCK GRANS BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES, UNITES STATES SENATE, SEPTEMBER 29, 1981

Mr. Chairman, my name is Mark I. Croke. I am the Legislative Representative for energy and environment for the National Association of Counties.* NACo welcomes this opportunity to address the issue of energy block grants and S-1544 in particular, and we would like to commend the Committee for holidng this hearing. We sincerely appreciate your efforts, Mr. Chairman, and we look forward to continuing to work with you as this proposal moves through Congress.

Introduction

While NACo has long been concerned with the broad implication of our energy dilemma, we have been particularly active in the area of county energy conservation. Our concern stems from the fact that in many respects local governments are at the cutting edge of efforts to reduce this country's dangerous dependence on imported energy and on scarce and non-renewable energy sources--a dependence which we all recognize cannot continue.

Counties, and other local governments were among the very first to recognize the potential of energy conservation as an energy resource. Not only did we, as among the nation's largest consumers of energy, feel the pressures of rapidly excalating energy prices but we were also faced with a national effort to constrain our ability to raise revenues. As a result, we discovered that energy conservation was a useful tool for balancing a budget. Today, for this and other reasons, many local governments are actively involved in conservation programs and in the application of new and renewable technologies.

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*The National Association of Counties (NACo) was founded in 1935) as the national spokesman for counties, to serve as a liaison between county government and other levels of government, and to improve the public understanding of the role of counites in the federal system.

Local governments are examples for the general public and the business community of what can be achieved through careful use of energy. Buildings, vehicle fleets, traffic control, and growth management are all local responsibilities and opportunities. What we learned, and will learn, in these areas are equally applicable in both the residential and commercial sectors. In addition, local governments have daily contact with large segements of the population. Such contact represents an unequaled opportunity to reach and educate people on a personal level. Many local governments also run economic development agencies which can foster energy efficient industrial development and land-use patterns.

Background

NACo was in the fore-front of organizations supporting the decontrol of energy prices. We recognized that "true" prices would help drive conservation and renewable resource use. However, we also recognized that price signals are only effective when people and institutions have the ability to make the necessary adjustments. While middle to upper income people and state and local governments running surpluses can effectively respond, most state and local governments and many, many individuals are aware of increasing prices but are unable to make the needed adjustments.

As a result, many of the people and institutions which can least afford it, are reuqired to make the largest sacrificies..

Congress, in the past, has recognized this dilemma and has provided a base of categorical grant programs to, in part, ease the transition to an energy decontrolled economy. NACo feels very strongly that assistance during this transition period must continue to be provided. If it is not provided, our efforts to revitalize the economy will be endangered as scarce capital is squandered through inefficient energy use. In addition, already strained government services will be further tested by individuals pushed into poverty or near poverty by excalating fuel prices.

Local Activities

Local governments are sources of innovation. Activities range from experimenting with methane powered vehicles in Sedgwick County, Kansas, to building the world's largest resource recovery/energy from solid waste plant in Dade County, Florida. In a less spectacular vein, counties are involved with carpool and vanpool programs, street lighting, information dissemination, energy building codes and a myraid of other activities. However, none is as important as the direct outreach programs conducted by many counties.

In that regard, I would like to submit for the record a number of publications which show the range of current activities and hints at the immense potential which remains untapped.

The first are the two volumes of A Guide to Reducing Energy Use Budget Costs which are manuals describing ways in which local governments can and are reducing their energy consumption. I would also like to provide the Subcommittee with a copy of a manual which was developed for a conference on energy which NACo held recently in Minneapolis.

These publications, taken together, show the range of activities which are underway and point out again how identical goals can be reached in significantly different ways where flexibility allows implementation to take local circumstances into account.

On additional publication I would like to make available is County Energy Reports; Alternatives to Federal Funding: Using Your Community as a Resource. This docuement was prepared by NACo to assist our members in making the transition to a decontrolled and non-federally assisted energy economy. It represents a recognition that while our energy situation is a national problem, the solutions may be found at the state and local level. Given time, counties will make this transition, but they need time -- time to adjust their budgets, their thinking and the thinking of their consituents, and time to allow constituents to be able to respond to price signals without having to make the distressingly familiar choice between food and fuel.

Block Grants

As we have noted we feel that we are in a transition period in our energy use. We are confident that, given adequate assistance, people and institutions can adjust to the new realities. The question then is what is the most efficient and cost-effective way in which to provide this assistance.

While the existing categorical grant programs have served a useful function, they have had many disadvantages. Differing application procedures, reporting requirements and lack of flexibility have all contributed to a less than totally effective use of these scarce funds. The last point, lack of flexibility, bears repeating, since it is the main advantage of a block grant.

Categorical grants by their very nature cannot possibly take advantage of unique regional and local conditions. While they target specific needs, they do not recognize that needs vary widely across the country. So, while a large weatherization program may make sense in the frost belt, the funds might be used more efficiently for other purposes in the sun belt. Likewise retrofitting schools in areas of declining enrollment may not be wise, on the other hand, in rapidly growing areas it may be the number one energy need of the community.

A block grant provides the needed flexibility to address local needs, whether it is weatherization in the frost belt or school retrofitting in the sunbelt. It allows the officials with the best information, state and local officials, the opportunity to identify their own circumstances and respond in the most appropriate manner. A block grant has the additional advantage of providing a single application and a set of reporting requirements, a cost savings in and of itself

S-1544

As the Committee is aware, the concept of combining categorical grant programs into a single energy block grant is not a new one. There have been efforts in each of the last three years to accomplish this.

S-1544 will, hopefully, succeed where past efforts have not. The Chairman's proposal is not only consistent with a desire to reduce unnecessary and overlapping administrative costs, but also recognizes the need to preserve a federal role in energy conservation.

While NACo is supportive of S-1544, we feel that changes should be made to enhance its viability. We are particularly concerned that while the bill is titled the State and Local Energy Block Grant Act of 1981, no further mention of local governments is made. NACo recognizes that, given limited resources, that it is necessary for local activities to be consistent with activities being implementated statewide. However, it is equally important that local governments be assured a base of funding which will allow them to meet their responsibilities as defined by state planning efforts.

In this regard, we would strongly urge that S-1544 be modified to specify that at least 20% of the funds made available under this Act be passed through to local governments. NACo, along with the League of Cities, Conference of Mayors and the Governors Association, has been working for sometime on a proposal which addresses both the pass-through provision, and the larger question of state/local relations under a block grant. I would like to offer our joint effort for your consideration. NACo, and I am sure the other state and local government groups, will continue to be at your disposal.

You will hear, or have already heard, from people who will urge you not to abandon the existing categorical grant programs. They will tell you that by going to a block grant the worthwhile objectives of these programs will be lost. The implication is that only the Congress hears the voices of the elderly and the poor ignoring the fact that state capitols, county courthouses and city halls are both physically and psycologically closer to the needs of their constituents.

We, clearly, do not see the adoption of the block grant approach as slighting the interests and needs of the current program recipients. We do see one danger in the block grant approach, however. That is, money easily given is money easily withdrawn. We are concerned that a block grant, particularly at the levels of funding proposed, does not demonstrate a national commitment to energy conservation. We are concerned, in fact, that this approach may mark a desire by some to eliminate any federal involvement in energy conservation by first combining categorical programs into a flexible block grant and they by eliminating the funding. Adding to our concern is the budget proposal for Fiscal Year 1983 which, at least in its current iteration, clearly does not comtemplate a program of the type proposed in S-1544.

While we are confident of the commitment of the Chairman and other members of this Committee, we feel that a strong note of caution is warranted.

Conclusion

In closing, Mr. Chairman, NACo has supported the existing base of programs designed to foster energy conservation. However, in the interest of efficient utilization of scarce resources, for capital can be as scarce as energy, we are supporting an energy conservation block grant such as the one you have developed in S-1544. We are very interested in working with you and members of your staff on refining this proposal.

This concludes my formal remarks. I would again like to express my appreciation for the opportunity to appear today and I am prepared to answer any questions you might have.

Senator **Warner**. Thank you.
Mr. Sperry.

STATEMENT OF SAM R. SPERRY, DIRECTOR, SEATTLE ENERGY OFFICE, SEATTLE, WASH., ON BEHALF OF THE NATIONAL LEAGUE OF CITIES

Mr. **Sperry**. Thank you very much, Mr. Chairman. It is a pleasure to be here this morning to address a subject that is of very great and longstanding concern to the city and local officials of the United States. I am here representing the National League of Cities and its affiliate, the Conference of Local Energy Officials, as well as the city of Seattle.

I don't need to remind you that the majority of the people in this country reside within the confines of urban and nearby suburban America and in the urban counties.

We believe that the local role with respect to a national energy policy and program and particularly with respect to its success is absolutely essential. We have a critical stake in national energy policy because the effect of any program or the absence of a national program takes place at the local level in a specific locale.

We are particularly concerned about people of our country, our friends and neighbors, who are not able to cope as well as some of us with the adverse impacts of energy problems, and the cities it seems to me have been the focal point of attention particularly by the media when a problem arises.

The poor, the elderly, the handicapped are the people who pay the price. Those are the troops that go over the top first in effect when prices go up, when supplies are short.

The first point I want to make then is that we believe that it is essential to have a block grant program that is directed to the people. If that is going to happen, cities and urban counties must have an integral role in the planning and the execution of that program.

A second point I would make with respect to the ability to deal with high prices would take us beyond the people who are under severe economic stress right to the middle class. If I qualify for that particular category, let me say that the 5-percent tax cut that I am going to get is not going to help me pay for the 14-percent natural gas increase that I am also going to begin paying on the very date that my 5 percent comes down the pike, so I am telling you that in percentage terms, I am in the whole by 9 percent. I am not going to put that in the special tax savings certificate. It is going to go to the gas company.

Moreover, we are going to export those dollars out of my community to Canada and to the overthrust, so there is a net negative balance of payment from my own household with respect to trying to deal with this particular energy cost. Of course, that is only one small way of dramatizing a problem that is far more painful for a great many others who are less fortunate than me.

I think the second point we have to look at is the whole matter of tax subsidies. It strikes me that we are all too willing to put billions of dollars through tax subsidies into certain programs and we quibble over smaller amounts, far lesser amounts with respect to programs that have I think on the balance a much better return and a far more immediate return. I am not here to criticize tax subsidies. I am merely trying to say that if we are trying to deal in a broad way with our energy problems, we need to develop a proper framework and an appropriate framework in which to make these judgments so whether we are talking about $200 million or $300 million or $336 million, it is a small amount. It is a drop in the bucket relative to other kinds of subsidies that are going into the private sector which leads me to the third point which is the myth of the free market.

We could cite case after case where the free market does not respond to need. The free market is brilliant at providing efficiency, but when large companies decide not to serve an area as in the case of an oil firm or a group of oil firms that are no longer going to provide oil to or petroleum supplies to a rural area because it is not efficient, because it doesn't make money, it does not in any way address the need of those communities for petroleum supplies, so the point I am trying to make here is that let's not get carried away and play let's pretend too much with what the free market can do. That is precisely why we have government, whether it is Republican government or Democratic government.

The point is how can we address the needs of our community and our Nation? We are not going to take a position that because some people need to cool more than they need to heat or that some people need to heat more than they need to cool that somehow we should have one program that tries to address all the needs. I think flexibility is an excellent idea, and I think that States if they will work with local communities can meet the varying needs of the United States and its regions.

In terms of the present issue, we are very impressed by the efforts of Chairman McClure and the process that he developed with respect to the emergency petroleum allocation legislation, and we would respectfully request the members of the committee and the Congress to look to this process to find the solution that can be supported by the States, by the counties, and by cities and towns for a successful block grant program.

We have taken the position that a figure of $300 million was one that we could support and apparently with the recent call for a 12-percent across-the-board cut that would bring this program in, as I understand it, Mr. Chairman, from the reconciliation level to about $300 million. We would certainly support the States in saying that a program below that level isn't going to accomplish much, regardless of who the players are.

If we are serious about this program, then we certainly would not fund it any more minimally. We support the proposals that are contained in 1544 introduced by Senator McClure and Senator Domenici because we think it offers a good starting point. Balancing the flexibility with greater efficiency inherent in a block grant approach with the specific concerns addressed by Senator Weicker in 1166 are important factors, and we certainly stand ready to work with you and your staffs to find a compromise that everyone can work with.

Essentially I believe that covers my testimony which you have. I would also like to submit to the committee a resolution that was passed unanimously by the conference of local energy officials in Los Angeles on September 18. It essentially states that we are ready and happy to work with Federal, State, regional, and other local officials to hammer out a successful program.

Thank you very much for your attention, and I would be happy to answer any questions you might have.

[The prepared statement of Mr. Sperry follows:]

TESTIMONY OF
MR. SAM SPERRY
DIRECTOR, ENERGY OFFICE
SEATTLE, WASHINGTON
on behalf of
THE NATIONAL LEAGUE OF CITIES

Mr. Chairman, and Members of the Committee, my name is Sam Sperry. I am Director of the Seattle Energy Office, and Chairman of the Conference of Local Energy Officials of the National League of Cities. I am testifying this morning on behalf of the National League of Cities, which represents, directly and indirectly, some 15,000 cities, including the 800 communities which are members of CLEO, ranging in size from New York City to Nampa, Idaho and Green River, Wyoming.

NLC is grateful for the opportunity to testify before you this morning on one of its top priorities: enactment of an energy block grant program.

Cities are the home of the majority of people in this country. More energy is consumed on our streets, in our housing stock, and in our industrial and commercial sectors than anywhere else.

Cities, consequently, have a critical stake in national energy policy. Escalating fuel costs mean increasing amounts of capital are re-directed from capital investment into meeting fuel and utility bills. In some sense, the net outflow of energy funds has contributed towards urban development in OPEC nations, while at the same time exacerbated the maintenance and development of domestic urban infrastructure. We have a very great interest in attempting to recapture that flow of dollars to meet our own needs and to ensure more and better quality investment in our own cities.

It is nearly impossible to consider long term economic and community development in this country without including the impact of energy costs. In California, water supply is the single largest consumer of energy. Meeting water needs for industrial, commercial, and residential growth as part of any economic recovery will all be impacted by the energy costs of ensuring that water is available. Similarly, the city of Boston loses nearly half its fresh water every day through leaking pipes. As a city official, one must consider not only the loss or waste of the water resources, but the amount of energy lost in making up for the loss.

Cities, too, Mr. Chairman, tend to house disproportionate numbers of the poor, elderly, and handicapped--those in our society least able to help themselves fiscally or physically in meeting minimum human energy needs. We know, for instance, that for a family with income of less than $7400 a year--15 percent of all households in America--that family will spend approximately 25 percent of its income on home energy and gasoline; yet that family will use only about a third as much energy as a family with an annual income of $36,000.

The impaction of energy prices on poverty have not just a direct, humanitarian requirement on those of us at the local level, but a series of ramifications. Poor persons who cannot afford their utility bills are no longer able to pay their rent. The pyramiding of delinquent rents due to fuel heating costs has created a vacancy rate in the neighborhoods of the South Bronx, Brownsville, Harlem, and the Lower East Side of nearly 50 percent. These neighborhoods have become a combination of burned out buildings and vacant lots. By last year, with heating fuel prices 80 percent higher than in 1975, 12 multi-family buildings a day were being abandoned in New York City.

For a mayor and city council the human tragedy is overwhelming and cannot be conveniently ignored because the budget must be balanced. But, in addition, the wholesale abandonment of community properties diminishes a city's tax base and overburdens the city's administrative and management capacities. It forces even more reductions in vital social services, while depleting any long term capital resources.

NLC believes that there is an opportunity, through sound national energy policy, to ensure that cities can assume a positive role in a domestic economic recovery.

We believe that this will require a careful review by this Committee of the appropriate federal role and the federal objectives to be met. This will mean more comprehensive consideration of national energy policy, extending beyond just the direct spending programs under the jurisdiction of this Committee.

While there has been extensive discussion of allowing national energy policy to be one of the free market, in fact, federal tax subsidies have diverted massive levels of capital to the fossil energy supply sector. These federal tax subsidies now exceed direct federal programs, and, not only has the rate of growth of energy tax subsidies been exempt from any budget review, but actually has been continuing to grow without any sign of abatement.

Perhaps a tax subsidy policy has a role. It does not, however, in a free market system. It does not when we talk about equity. For tax subsidies benefit only those who pay taxes--they discriminate against those who cannot--small businesses with no net earnings, non-profit organizations, low income families and individuals, and states and local governments. By our analysis, Mr. Chairman, energy tax expenditures target assistance to those least in need, while depleting the federal treasury of revenues needed to balance the budget and reduce spiraling interest rates.

There is one other issue which must be central to your review of national energy policy. I know that this Committee has struggled under your leadership, Mr. Chairman, to authorize the President to allocate fuel in the event of a severe energy shortage. We applaud the determination and effort you have displayed. We concur that at times the market response will be distinct from a government response.

But as city officials, we know that for all too many Americans that severe energy crisis is already here. We know that the heat wave in 1978 claimed over 1300 lives. We know that the city of Phoenix, Arizona, is attempting to determine the number of persons who die annually due to energy related causes. We know that the City of Alexandria, Virginia, is soliciting private contributions, because of the number of elderly persons in inadequate, older housing who cannot pay fuel bills. We are aware, too, of our small city members in rural areas who have watched the oil companies close up shop in their communities. Providing energy to homes for the handicapped or for gasoline in rural communities is neither efficient nor profitable from a market perspective--it is a critical responsibility from the government's perspective--one which we at the local level cannot and will not ignore.

Finally, there is an economic question to be addressed--a cost-benefit analysis, as it were. The reconciliation bill contains a significant level of funding for three years for emergency fuel assistance. This funding, once expended, is forever lost. Its use neither encourages investment, productivity, nor incentives to conserve fuel. The level of funding is considered too high by the Administration, too low by those who must depend upon it. Does it make sense to continue to pay fuel bills which are much larger than they need be as opposed to a minimal investment in conservation which will reduce costs for the economic useful life of the shelter?

At the beginning of the year, Mr. Chairman, the National League of Cities commenced work with the National Governors' Association, the National Conference of State Legislatures, the National Association of Counties, the United States Conference of Mayors, and the National Association of Housing and Redevelopment Officials to coordinate and cooperate on determining a framework for national energy policy. For all of us, the central issue was to develop the most effective and efficient means to be a provider of last resort for the elderly, the poor, and the inadequately sheltered--in a manner consistent with our resolve not to permit the continued economic losses associated with energy waste.

We, and by that term I am referring to all these public interest groups, would like to share our proposed framework with you. We would also like to offer our assistance to the Committee in any way we can. We were deeply impressed with the consensus process Chairman McClure used for consideration of the emergency petroleum allocation legislation.

In our discussion last January and February, we determined that defining the federal interest and scope in energy assistance to the state, local, and community level was central. We also recognized that a severe curtailment of the level of federal assistance was necessary in order to contribute to reduced budget deficits.

We reached agreement on a level of funding for a state and local energy block grant program 12 percent less than that signed into law by President Reagan in the Reconciliation Act. We felt that level was a minimum level, but an important signal of our conviction on budgetary matters. In light of the President's most recent economic recovery proposals, we believe our initial proposed funding level is right on target.

Within this budgetary guideline, we developed a framework which we recommend to you today. To begin with, we believe that the federal aid should be directed or targetted to need, to those persons or institutions who lack the resources to help themselves.

Secondly, we believe that assistance should be made available based on a recipient's ability to pay. While energy needs differ enormously from city to city, the potential for economies and human assistance is uniformly high. The fiscal ability of a state or local government to make capital contributions, however, varies dramatically, dependent on factors such a deterioration, age of rental housing stock, and poverty levels relative to population. Consequently, we would recommend adoption of a funding formula based upon how much a level of government can help itself or how little.

Finally, we determined that legislation ought to provide that the level of government funded be given the ability to ensure that whatever funds are available will provide the most effective public return on the investment.

Existing law contains a large number of programs whose benefits eventually trickle down to the local level in an uncoordinated fashion, after being filtered through layers of state and federal bureaucracy. The benefits are narrowly directed and well intentioned. They are inflexible and bureaucratic in nature; they are effective only to the extent that every city in this country has exactly the same problems in the same proportion.

We support, then, provisions which would be sufficiently flexible to meet the variety of different activities which would be appropriate to the divergent needs and characteristics of communities. No federal assistance should be made available without a demonstrated commitment on the part of the recipient to maintain or increase its current expenditures on local energy programs and activities.

In closing, Mr. Chairman, I would like to thank you for your time and attention. I hope we will be permitted to work with you to improve the economic vitality of the nation's cities. We view your efforts as an opportunity to make a positive investment with genuine return reflected not only in dollars, but more importantly in the quality of life of American communities.

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NATIONAL LEAGUE OF CITIES

CONFERENCE OF LOCAL ENERGY OFFICIALS
A RESOLUTION IN SUPPORT OF A FEDERAL LOCAL ENERGY BLOCK GRANT PROGRAM

Whereas energy problems must be dealt with in a manner that is fair to all regions, sectors, and income groups;

Whereas special concern should be given to the needs of the poor and those on fixed incomes;

Whereas energy conservation and renewable resources development make more capital available for urban investment;

Whereas energy resources should be recognized as a public trust and developed in an efficient, effective and equitable manner; and

Whereas energy is not an end in itself and must be seen in relationship to other public values;

Now therefore be it resolved that the National League of Cities' Conference of Local Energy Officials will continue to cooperate with state and regional agencies in coordinating national energy policy.

Be it further resolved that the National League of Cities' Conference of Local Energy Officials supports as one of its most important goals a federal local energy block grant program. Federal energy policy should recognize local governments as equal partners in attaining national energy objectives, and should provide at least equivalent assistance to cities as is provided to the private sector.

Further be it resolved that the Federal government should make a special effort to assist cities in meeting the critical needs of urban low income and elderly persons.

Sam R. Sperry

Sam Sperry, Energy Director,
City of Seattle, Washington and
Chairman, National League of Cities'
Conference of Local Energy Officials
Approved September 18, 1981, Los Angeles, California

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Senator **Warner**. I just have one question for all the panelists. Is it a general consensus now that the existing system is inefficient? Does anybody take issue with that?

Mr. **Helme**. No, sir. I think we would all agree it is inefficient, although we feel it can be improved with some target changes.

Senator **Warner**. I understand you, and that there is a desirability now to go to the block grant system on your part?

Mr. **Helme**. That's right.

Senator **Warner**. That is very clear.

Senator. Ford.

Senator **Ford**. Are you in favor of block grants over the present system if the present system was improved?

Mr. **Helme**. I think when we talk about a block grant we are saying we want—we are not in favor of repeal, as I mentioned earlier, so in that sense we are for retaining the present system, but we want the flexibility, so you have got basically six categoricals. We want one application from the Governor to the Federal Government asking for the funding and his share of that amount of money and flexibility to say how much goes to the schools and hospitals, how much goes to weatherization, how much goes to transportation, conservation, that sort of thing.

Senator **Ford**. How much goes to the local communities?

Mr. **Helme**. No; we have agreed that we would put 20 percent aside guaranteed for the local, so there would be no battle at the State level.

Senator **Ford**. Would that proposal be put in this legislation then?

Mr. **Helme**. We would support that.

Senator **Ford**. Is it in here?

Mr. **Helme**. It is not.

Senator **Ford**. OK. Do you like the Weicker bill better than you do this one?

Mr. **Helme**. Speaking for the State, I would say no because we do not like the 65-percent mandatory requirement that money go to weatherization in the Weicker bill. We feel that that eats up so much of the program and tightens down so much on the flexibility that you don't gain what you want, and we would accept the big cuts, but we have got to have flexibility for the targets. Otherwise it is not worth it.

Senator **Ford**. Let's hear from Mr. Croke.

Mr. **Croke**. It think we from the county point of view would agree with that general assessment. There are certain advantages to the Weicker bill that this bill does not contain particularly regarding the repeal of the underlying authorizations.

I think our main interest as it is stated is the idea of getting flexibility in program implementation. There is the additional danger which I believe the Senator is aware of that if you do away with the underlying authorizations, particularly given the budgetary commitment we have seen to date from the administration, and certainly the draft proposals for 1983, by eliminating the underlying authorizations and combining it into a block grant, there is the danger that you have nothing left but a money program for which we have not seen a commitment, and as a result 1983 could well be the last year of the program, and that is of concern to us.

Mr. **Sperry**. Mr. Chairman and Senator Ford, I don't want the word "flexibility" to become a kind of code for anything goes, and if the Congress decides that it would like to place certain restrictions so that we don't find ourselves heating mansions and air-conditioning buildings that are inappropriate when we have priorities that are clearly on a higher order, then let's not take flexibility so far as to be absurd.

I don't want to get into the fine print and the footnotes with this point, but just as the same point I made about the myth of the free market, I don't think flexibility means, and I don't think my colleagues on this panel would really object to reasonable kind of guidelines in the legislation.

Mr. **Helme**. Let me answer that. If I could add one thing, Senator Ford, one of our concerns about the Weicker bill is it does not address any changes in the existing programs and simply sets a new set of requirements on top of what is already there, and we think that it could be amended in such a way to make some changes in the existing programs and give us that flexibility.

Senator **Ford**. Let me ask again, taking the Weicker bill and this bill under consideration, which one would you have to change the most to be most desirable to you, the least to be most desirable to you?

Mr. **Helme**. I think it would be easier to change S. 1544. I think we suggested several amendments. You raise the authorization, put in a transition provision, add some provisions to modify the existing programs in lieu of section 8 which is the section that repeals everything, take that out, and you have got a workable bill, whereas the other way I think it would be more complicated.

Senator **Ford**. Mr. Croke, do you agree with that?

Mr. **Croke**. I agree. I think either approach would be workable. I think we could work off either the Weicker bill or S. 1544 without too much difficulty. I think it would be easier, however, to amend S. 1544.

Senator **Ford**. Mr. Sperry?

Mr. **Sperry**. I would suggest, Senator, that the approach that was outlined by Mr. Tauke earlier might be the one that we think you ought to use and key off of.

Senator **Ford**. Which one is that? You want the Tauke bill?

Mr. **Sperry**. Yes; House H.R. 4163.

Senator **Ford**. I wonder if the others then—what would you change to conform with that one?

Mr. **Sperry**. I would take the best parts of each.

Senator **Ford**. You want to get more "flexibility" and you said you didn't want to use the word "flexibility" like you do anything you want to with it. I think Senator Bradley was making the point that under this piece of legislation you could do these absurd things and as I said to Senator Domenici a while ago, you wouldn't even let a contract if you were Governor of my State. You would be gone like that, but I think Mr. Davis indicated that regardless of what happened, that he was going to institute guidelines or they would institute guidelines which would then mean we would pass a piece of legislation where we get back to the same old posture, and guidelines by any other name is called regulations, and so you would be back in the same posture under this legislation as maybe you are now, and you wouldn't be gaining flexibility under the block grant. The only thing you would be gaining is a lot less money to do a whole lot more with.

Am I wrong?

Mr. **Sperry**. No, sir. You are correct.

Senator **Ford**. Now I want to clear up one thing that you said about the Governors a few moments ago; the inference about having any problems of absconding with funds and that sort of thing was injected into this committee's hearing on the allocation bill. They wanted to keep it up here because there was the possibility of fraud and all that sort of thing with the Governors and Senator Bradley was just asking that question to offset that, so don't take offense to it, my friend. You were trying to be defended at the time.

I believe you said that the gas prices were going up 14 percent, and your tax cut was only 5 percent, and that gave you a 9-percent shortfall. You talked about the fellow with the school lunch programs. It will cost him more than his tax cut under a certain income and so forth. If you have children you send them to school, your increased costs are going up for the school lunch, and after we had a soybean sandwich, which made such good press on it, Stockman called it a bureaucratic goof, and I'm certainly glad he did, I have a little sense here that even though we don't have that 20 percent in there going to the cities, there is going to be some problems with the Governor having all those block grants and the cities wondering if they are going to get it.

Now you have a large Republican city and a large Democratic city, and how is the Governor going to look at those big cities if you don't have something locked in? If you have a Democratic Governor, he is going to look to the Democratic city where he gets his votes. That is human nature. You have more friends, or if you have a Republican in and you have a Republican city down here, that is where his friends are, those are the ones that get in to see him and push him, that sort of thing.

Aren't you a little fearful, should we be a little fearful of that up here?

Mr. **Croke**. Well, yes, Senator, I think you might be. However, we, as I mentioned, this panel has been working together for quite some time on this. Actually it dates back a couple of years now that a proposal of this type has been kicked around. We did recognize that. We spent a long time butting heads, and we finally worked out what we feel is a workable formula or workable mechanism for getting around that type of problem which would take care of urban areas within the State on an almost substate formula basis.

Again, we would be more than glad to continue to work with the committee on something along those lines.

Senator **Warner**. Let me ask my colleague a question there. It is rather an interesting point, or just a comment on it. If that rationale were to be proven in State and local government, why wouldn't it be at the Federal Government? Does the record show that we have been totally bipartisan up here?

Senator **Ford**. No, but I think we are beginning to get a trend, Senator, away from that, and hopefully we can be as fair with one another as we are with others because whether you are a Democrat or Republican, black or white, green or yellow, you have the problems, and they have to be served, and once you are a legislator, you have to do the best job you can with that.

Senator **Warner**. The underlying premise is if you have got a Governor of one party, he is going to favor those communities that have——

Senator **Ford**. That is the reason I am trying to say we ought to lock in a percentage for cities so that they can have something to depend on. They are faced now with a very nervous posture about revenue sharing and how much might be cut, and we notice what happened last time as it related to the States, one third, and now we talk about 12 percent across the board, and they are already 3 months into their budget, and we are just getting ready to start ourselves, and so they have a right to be nervous, and they have set a budget of *x* number of dollars and then we cut them.

I think my little statement earlier, there might have to be a fifth envelope which will say we are going to blame the mayors next.

What I am saying, there has been no orderly transition of the transfer of responsibilities to State and local entities, and what they are being asked to do is to absorb an abrupt curtailment, and they are being blamed as of this date for that abrupt curtailment, trying to meet those, and having been there, having been there, I understand about some of this abrupt curtailment and no orderly transition, and though I may seem partisan, I am trying to be fair.

Now I am asking whether Democrats or Republicans—I have always said that the cities ought to get 20 percent or a piece of it, so I just are saying that you have to be fair out there if it is going to work. Otherwise you are going to see some get it and some not, and that doesn't solve the problem, and so let's get away from—I know how to play politics as well as the next fellow, but I also think you ought to be fair to those people down there that are in need. You have got to do that. If you don't do that, then you are not—the Government is here to serve the people. You can't run it like a business. We are not trying to make a profit. We just hope we can break even, and the way we are going, we are not doing a very good job of that, so let me just ask my final question, Mr. Chairman. I have to go. The bells are calling.

How much money, or let's say this. Are there counties willing to pay a 50-percent match?

Mr. **Croke**. Senator, I believe we are willing to pay a 20-percent match.

Senator **Ford**. You are willing to pay, the counties are willing to pay a 20-percent match?

Mr. **Croke**. Yes, sir. We have a policy that we will support a matching requirement.

Senator **Ford**. So when the State gets $1 million, and your community is entitled to $200,000, you are going to match it?

Mr. **Croke**. Yes, sir.

Senator **Ford**. With what?

Mr. **Croke**. That is one of the other issues that was brought up.

Senator **Ford**. You want us to give you the ability to raise your local taxes?

Mr. CROKE. No, thank you. No. The fact is though we feel that that is one of the questions, other questions that has been brought up as kind of an objection to block grants, its vulnerability, we feel as a measure of accountability that that match requirement should be in there.

Senator FORD. I didn't raise that point of accountability.

Mr. CROKE. I am not pointing any fingers. We do not believe that there should be free money in the sense it is given to anybody. There should be a commitment at the State level of local government to the purpose of a program. One way to get a commitment is a match requirement. If you are required to put up a portion of your own money, you are going to think about what you are doing because again not only are you responsible to government by way of auditing for that 80 percent, that 20 percent you have to be accountable to your voters.

Senator FORD. How much match are you willing to put toward a secondary sewage treatment plant? This is where we are going, and if you don't want to gear up for raising local taxes, you are going to find yourself in a whale of a position. I am not saying local taxes. I am not proposing increasing taxes. The only thing I am saying is that you are getting ready to have the crunch.

Now let me ask you, the city man over there, is it Sperry?

Mr. SPERRY. Yes, sir.

Senator FORD. Are you ready to put up, if this bill passes, you have to put up 50 percent. You are going to say we will come up with 20?

Mr. SPERRY. Our position has been 20 percent, Senator. Yes, sir, we are ready to do that. As a matter of fact, my particular city is one which owns and operates its own electric utility, and we have a program underway for people who heat with electric energy, but that is only 20 percent of the homes.

We would like to see the 20-percent match be allowed to be either in cash or in kind. I certainly support the earlier remarks that we feel it is a measure of accountability.

Fifty percent is too high. We are raising taxes this year.

Senator FORD. Is accountability based on match? I thought if you had accountability it wouldn't make any difference whether you paid a dime or not. What we are doing is putting accountability on how much money you put up.

Mr. SPERRY. I don't equate the match with the breadth of the term accountability.

Senator FORD. That is only what I have heard so far.

Mr. SPERRY. It is a measure of commitment.

Senator FORD. It is a measure of commitment. Does that make you accountable? Does that mean you are going to run a good program?

Mr. SPERRY. We are going to run one, sir. We are also raising taxes by some $27 million in order to meet our expenses.

Senator FORD. Who is "we"?

Mr. SPERRY. The city of Seattle; if we lose general revenue sharing, that is going to make an additional $8 or $9 million burden for the small business people of our city.

Senator FORD. Or do away with the programs.

Mr. SPERRY. They have cut 400 positions already. It is blood and cuts.

Senator FORD. What I am saying, if you lose revenue sharing and your community is not willing to pick up that difference, then you have to do away with whatever revenue sharing was doing.

Mr. SPERRY. You have got to have police and fire, Senator, and that is about the only place left to go.

Senator FORD. Police and fire, is that where you are putting your revenue sharing?

Mr. SPERRY. Yes, sir.

Senator FORD. Would you like to have somebody manage your city a little bit better? You should not put that money into recurring expenses, you should have nonrecurring—let the local community take those ongoing things as responsibility. When you get cut off, then you don't lose anything.

What happened to us on revenue sharing, you put them into recurring expenses, and you put them into things that would not—now when we say up here it is coming, the crunch is coming, you are going to lose revenue sharing, then you are taking it out of everyday expenses. We talk about lowering education, doing away with the policemen, cutting out the fire department, and that is the problem, and so what you have to do is go back and say is this community responsible for that? The nonrecurring expenses is where you should have put revenue sharing, so I see the crunch coming, and I see where the problems are. It is in those salaries and then we get hit over the head, you are doing away with our police protection—no.

Senator WARNER. Senator Ford, you mentioned about 10 minutes ago that was your last question. Have you finished?

Senator FORD. We are going to have another day of hearings on this, so I guess I will quit.

Senator WARNER. Thank you very much. We will proceed to the next panel—Mr. Lash, president of Energy Conservation Coalition; Mr. Hill, managing attorney, Washington office, National Consumer Law Center; Ms. Shirley Hansen, energy adviser for the American Association of School Administrators; Mr. Clayman representing the National Council of Senior Citizens, and Ms. Bleviss of the Federation of American Scientists.

Before we undertake the testimony, could each of you identify yourselves so that I can call on you?

Mr. LASH. My name is Jonathan Lash from the Energy Conservation Coalition.

Ms. BLEVISS. I am Deborah Bleviss from the Federation of American Scientists.

Ms. HANSEN. I am Shirley Hansen, American Association of School Administrators.

Mr. CLAYMAN. Jacob Clayman, president of the National Council of Senior Citizens, and beside me is Rev. Robert Gillison.

Senator WARNER. Could we have the proper spelling of your name, sir? For the record could we have the spelling of your name?

Reverend GILLISON. G-i-l-l-i-s-o-n.

Senator WARNER. Thank you.

Mr. HILL. My name is Charles Hill with the National Consumer Law Center.

Senator **WARNER**. Reverend Gillison, could you kindly give us your address?

Reverend **GILLISON**. Reva, Va., Route 1, Box 211.

Senator **WARNER**. Reva, Va.; we especially welcome you. Now we will start off with Mr. Lash.

Mr. **LASH**. Senator, we had discussed letting the senior citizens go first.

Senator **WARNER**. Very well. Then we will be glad to do that.

Mr. Clayman.

Mr. **CLAYMAN**. Thank you.

Reverend **GILLISON**. I have come to discuss with you the needs of the winterizing program.

Senator **WARNER**. All right. If you would be kind enough to draw that microphone right up there we can then hear you better and the reporter can get down your testimony.

Now do you have a statement that is separate from Mr. Clayman's?

Reverend **GILLISON**. No.

Senator **WARNER**. We are perfectly willing to take your oral testimony.

Reverend **GILLISON**. What did you say?

Senator **WARNER**. We are perfectly willing to take your oral testimony.

STATEMENT OF REV. ROBERT GILLISON, REVA, VA.

Reverend **GILLISON**. I am Rev. Robert Gillison, pastor of two churches, Crooked Run, Rapidan, and Oak Grove, Oak Park, Madison County. I esteem this privilege to come to tell you that the winterizing organization is a great need to help senior citizens to have their house for winterizing and help keep them warm, not suffering from the cold weather and freezing to death.

We are willing to have cold, and we live in a county where it is very cold. We know someone that are suffering from the cold weather and couldn't have their house winterized from the cold, and help them, please help them on fixed income, and no money. They have no money to spend for food and other needed things.

I had my home winterized about 3 years ago. It cut down the costs of heating and now we have money to spend for other bills. By being the minister of the Gospel, I come in contact with many persons that needs help, and if we can help them, and if we do not, God will hold us responsible for it. Hoping that this program will not be cut off.

Thank you very much.

Senator **WARNER**. Thank you very much, Reverend, for providing that helpful testimony based on everyday experience.

Reverend **GILLISON**. Thank you.

Mr. **CLAYMAN**. Mr. Chairman, I will do this as quickly as I can.

Senator **WARNER**. Don't rush. We are here to listen to your petition.

STATEMENT OF JACOB CLAYMAN, PRESIDENT, NATIONAL COUNCIL OF SENIOR CITIZENS

Mr. CLAYMAN. When I awoke this morning, I think the frost was very much on the pumpkin. It was chilly in my house. Automatically I turned on the heat, and it was comfortable.

The plain, bitter hard fact is that millions of Americans, particularly elderly, can't do it as nonchalantly as I did it this morning. They have to think about it—shall we forgo a loaf of bread perhaps, and I am not getting sentimental. It is factual. A bottle of milk? Shall we forgo all the other amenities of life and so for a quick minute I want to give you a rather broad profile of the kind of people that I am talking about and the kind of people that this good Reverend represents.

One-third of American elderly are at or near poverty. That is a shocking statement. One-third of all the elderly are either in poverty or close to the line which we now call near poverty.

Two years ago, 1978 to 1980, the number of impoverished old Americans increased by 600,000. Incidentally, Mr. Chairman, that is the sharpest increase in 20 years. Inflation has gone up 122 percent for these people as for the rest of us and that is twice the rate of social security adjustment in the same period.

It is kind of an interesting statistic for those who have the feeling that the cost of living increases and social security may be too affluent. The plain fact is that that has risen only one half the increase in utilities.

The elderly spend four times, approximately four times more than the normal American families for energy.

Senator WARNER. Could you explain why that is? Is it that they live in dwellings which are should we say constructed poorly as compared to others, and therefore, there are higher energy requirements to make up for the energy efficiency?

Mr. CLAYMAN. That is one of the problems.

Senator WARNER. Their own systems require a little more heat than the younger people?

Mr. CLAYMAN. Oh, they do. Let me talk about that in just a minute, but let me make this quick point. Their utility rates are higher. Isn't that interesting? Because the homes that use very little electricity, for example, or gas on a per capita basis, on a unit basis, cost more than those who use a lot. This has been the tradition in the industry for as long as I can remember. I can remember for a long time.

Then they live in homes that were built many years ago, a great many of them, and in those days the weather condition, weatherization, we know it was not in vogue, and so many of them live in homes that are a sieve, and since you have raised the point, if other panelists will forgive me for maybe taking an extra minute or two, since you have raised the point, the elderly are susceptible to the contrasts both in heat and in cold.

Senator WARNER. I understand that very well. I don't mean to be personal, but I have a mother who is 92 years old, and we take very good care of her, but I know precisely what you mean.

Mr. CLAYMAN. As you know then, that even temperatures in the sixties in some situations can be fatal for elderly people, and so this emphasizes what I have said, the desperate need for Government to do not what it has been doing but more.

I know all the arguments about balancing the budget, but here we have a problem of balancing the human budget and while that is a trite phrase, it is meaningful. I don't think it would do us much good to balance the financial budget and hit it right on the nose and then discover that millions of our people don't feel they are living in a humane society and many of them don't.

Let me go beyond that quickly. We feel that Senate bill 1544 deals a serious body blow to most low-income weatherization programs. Take a look at the statistics. Heretofore we have had a budget and appropriation of roughly $363 billion for the various programs now being operated, and the bill that I have referred to would cut it to $200 billion. That is a reduction of $163 billion. That is a reduction of 45 percent.

Senator WARNER. Let us check. I am interested in that figure.

Mr. CLAYMAN. My good friend to my right has suggested that I said billion. If I did——

Senator WARNER. For your folks it doesn't make any difference if it is millions or billions. It is still cold and I just wanted to check for you the amount. It is 45?

Mr. CLAYMAN. It is 45, and that in our judgment, if I may use a discourteous word, is atrocious. We have been talking about a 25-percent reduction generally, and that we thought was horrendous, but this goes beyond horrendous.

Senator WARNER. You will forgive me. I was so interested in your testimony, I want to get a few more facts in my mind. It perked up my interest a good deal.

Mr. CLAYMAN. I trust, and I am pleased that you have this kind of interest because the statistics, when I was given them shocked me likewise. It is rare even in these days when everybody is trying to pinch pennies that you get that kind of a reduction, incidentally, in programs which are working, and that is the interesting factor. They are working and here is a good gentleman who is a kind of an example, an exhibit, of what this program does.

Senator WARNER. On that point, I wonder if the Reverend would tell us how many homes do you know of, Reverend, that have received this type of assistance? Could you give us the number?

Reverend GILLISON. I can't give you the exact number, but I know, I would say that it has been a great many that I know have had this service, and they have been highly appreciative and said that it helped them provide the money that it would take for the electric bill or for the wood bill or for many other needed things that life requires, by having the house winterized. That helped them so much.

I can't tell you definitely how many, but I know it has been quite many.

Senator WARNER. All right. Thanks.

Mr. CLAYMAN. Let me complete this because I am taking too much advantage of the others sitting here with me.

This cut that I have described to you, plus the block grant suggestion, really means seriously and factually the death knell for the low-income people who receive weatherization. As a matter of fact, the bill calls for the elimination of the weatherization program entirely.

Let me give you this final fact. We contracted to have some organization in the consumer energy field to do a study for us, and they came up with this fact, that the average investment in weatherization, that is, the DOE program, was $968, and the energy reduction caused by the weatherization was 26.7 percent, so I am saying don't in effect kill this program or make it relatively insignificant and meaningless and the continuation as in the past argues well for the poor and near poor.

Thank you.

[The prepared statement of Mr. Clayman follows:]

Hearing Before the U.S. Senate
Committee on Energy and Natural Resources

Chairman-Senator James A. McClure

on

S. 1544 The State and Local Energy
Block Grant Act of 1981

Presented by

Jacob Clayman, President

National Council of Senior Citizens
925 15th Street, N.W.
Washington, D.C. 20005

September 28, 1981

Mr. Chairman and members of the Committee:

My name is Jacob Clayman and I serve as President of the National Council of Senior Citizens. NCSC is the largest organization of senior citizens clubs in the United States, with over 4,000 chapters representing almost 3.5 million older people.

In just two days, Mr. Chairman, it will be October and already there has been a chill in the air. Winter is approaching, bringing for some the joy of cold weather sports, the anticipation of Christmas and the hopes for a new year. But for others the winter season brings yet another prolonged battle for survival against the cold. It brings unaffordable utility bills that somehow always seem to be paid--even at the expense of food and medicine.

"Waste not, want not" is a way of life that is shared by older people who have never forgotten the poverty of their youth during the Great Depression. Following this ethic--and it's particularly appropriate to our subject today--many elderly and disabled people have responded by reducing their home heating consumption to the bare survival point. Unfortunately, this ethic also underscores a more terrifying reality to the old and infirm: the poverty they knew in their youth, after a lifetime of building America, has returned to haunt them when they can no longer work and when they are less physically able to confront it.

One-third of America's elderly are at, or near, the poverty line. In just two short years, between 1978 and 1980, the number of impoverished older Americans increased by 600,000. This represents the sharpest increase since poverty statistics were first collected over twenty years ago.

Increasing age and the rising cost of energy make an unbeatable team in forcing hundreds of thousands citizens onto the welfare rolls. Energy inflation, which is outpacing the overall inflation rate helps speed this downward descent. In the past five years energy prices have risen over 122%--a rate twice that of Social Security income adjustments during that same period, and for every nickle increase in Social Security, energy takes a dime.

The crisis can be described in stark terms. According to some recent statistics that were prepared for the National Council of Senior Citizens, in 21 states in the coldest months, the energy expenditures for SSI recipients receiving the maximum benefit under that program (approximately $240), leaves $25.00 or less monthly income which can be used for food, medical care, and other necessities. By 1990, even if we assume no dramatic increase in energy prices, the poor will be paying over 37 percent of their disposal income for energy. Moreover, because the elderly are especially vulnerable to conditions affected by excessive heat and cold--illnesses that are known as hypothermia and hyperthermia--thousands will die before their time unless they receive help. For hypothermia to become a problem to an older person, even relatively mild temperatures--below 70 degrees--can be dangerous. Besides health problems and an insufficient income, one other factor justifies an effective residential conservation strategy for the elderly. Many homes were built before there ever was an energy crisis and are substandard according to today's energy efficiency guidelines. Without adequate conservation measures older people will continue to waste energy despite the fact that their economic security, their health, and their very lives will be jeopardized.

It is impossible, Mr. Chairman, to minimize the severity of the problem older and disabled people now face because of the energy crisis.

The National Council has been telling Congress this for a long time, and it has not fallen upon deaf ears. In recent years Congress has passed legislation funding numerous energy programs to help the elderly and the poor--Low-Income Energy Assistance, Weatherization aid, and the Solar and Conservation Bank, to name a few. After some time spent overcoming administrative hassles, these programs have proven to be truly lifesaving for hundreds of thousands of lower income Americans.

I have been asked to address myself to S. 1544, the State and Local Energy Block Grant Act of 1981. It is our belief and that of numerous energy advocates around the country, that the net effect of enacting S. 1544 will be the termination of most low-income weatherization programs operating today. Shifting the burden of responsibility for serving the poor from the federal government to the states as this bill proposes, in no way assures that these people will be better served. At the same time, reducing the overall amount spent for energy programs from $363 million to $200 million, as this bill also proposes, assures that they will not be better served.

The basic flaw of S. 1544 is the fact that it is a block grant. Conservation initiatives for schools, hospitals, municipal projects, libraries, even commercial conservation services are lumped together with residential energy conservation, rural weatherization and low-income weatherization assistance. What public official will be able to resist the pressure of influential civic groups pushing for repairs and insulation of a local library against the silent pleas of older and low-income people incapable of giving voice to their needs. A recent report issued by the National Citizens Monitoring Project examined the effectiveness of the community development block program in meeting the needs of the poor. In it they state:

> "...the design of any block grant program must take into account the massive scale of the block grant progam, and the consequent difficulty in overseeing it from the national level without a system of on-site independent performance monitoring. Furthermore, the block grant program's stress on local discretion

> and flexibility strengthens resistance to national standards and priorities and leaves the program vulnerable to pressure to scatter the funds and to use them for general government. This decreases the likelihood that funds will be concentrated on long-term investments and development strategies which will have a substantial impact on future living conditions for low-income people. The distribution of funds to local officials also adds to the pressure to scatter the funds and to resist targeting to politically weak low-income people."

The combined effect of the Energy Conservation Block Grant Act and the reduction in funding by $163 million, will be the virtual abandonment of efforts to help poor people pay their own energy bills. It will mean continuing and growing dependence upon band-aid programs such as the Low-Income Home Energy Assistance Act--a program which transfers $1.8 billion dollar from the federal government to the utility companies.

But the most serious objection I have to S. 1544 is the provision which eliminates the Department of Energy's Low-Income Weatherization program (Section 8(b)(1)). I alluded before to the early administrative hassles associated with the Weatherization program. Although these difficulties should not be minimized, the fact is, that over the past two years this program has performed admirably well. Included with my statement, Mr. Chairman, is an executive summary of a report done for NCSC by the Consumer Energy Council of America. The full report can be obtained from CECA. This study provides irrefutable evidence of the effectiveness of the DOE program itself and of the economic logic behind a publicly funded low-income residential weatherization effort.

With respect to the DoE Low-Income Weatherization program, the study concludes:

> "CECA's review of the available evidence demonstrates that low income weatherization saves a great deal of energy and that the Doe program is doing an excellent job of achieving those savings."

The CECA study reveals that in the DoE program, the average investment in weatherization was $968 and the reduction in energy consumption averaged 26.7 percent.

These figures compare favorably with data reflecting energy savings per dollar invested in two other weatherization efforts. One was conducted by the National Bureau of Standards and Community Services Administration; and it showed that with an average investment of $1,742 per unit, the energy savings achieved was 30.5 percent--a difference of 3.8 percent in saved energy, achieved at almost twice the cost. The second effort was a series of non low-income weatherizations done primarily for research purposes. Results of those efforts showed an investment of $1132 returned a 31 percent reduction in energy savings on the average.

With respect to the value of weatherization as a component of our nation's energy policy, the study states:

> "Based on a comparison of key economic characteristics of weatherization and energy production options, it is clear that weatherization is an attractive use of federal energy dollars.

- * In terms of cost: Low-income weatherization delivers energy at an average cost of $19-40 per barrel of oil equivalent, which makes it a cheaper way to expand the nation's energy resources than any production option.
- * In terms of capital and labor intensity: Low-Income weatherization is less capital intensive and more labor intensive than any production option, thereby creating more jobs per dollar of investment and output.
- * In terms of geographic concentration: The economic activity associated with low-income weatherization is evenly spread across the nation thereby avoiding the mass transfer of funds from energy consuming to energy producing regions of the country."

Both from our observations in the field and the results of our studies, we find it difficult to find any justification for eliminating the Energy Department's Weatherization program. I hope that this Committee will take to heart our views, because it is increasingly difficult for us to respond to the hundreds of letter we receive each year asking us for help. I would like to submit for the record, Mr. Chairman, a series of excerpts put together by our outreach program known as Project Energycare. I hope this Committee and other members of Congress find time to read them. Thank you.

Senator WARNER. Thank you. I have been given statistics which show that in our State of Virginia, 13,558 homes were weatherized through the fiscal year 1980.

[Material submitted by Senator Warner follows:]

WEATHERIZATION ASSISTANCE PROGRAM

The Weatherization Assistance Program is intended to reduce the use of fuels by low-income families and thereby decrease national energy consumption, particularly of imported oil, by weatherizing the homes of low-income persons. An equally important benefit is to help the poor and elderly live more comfortably with more of their limited incomes available for other essentials.

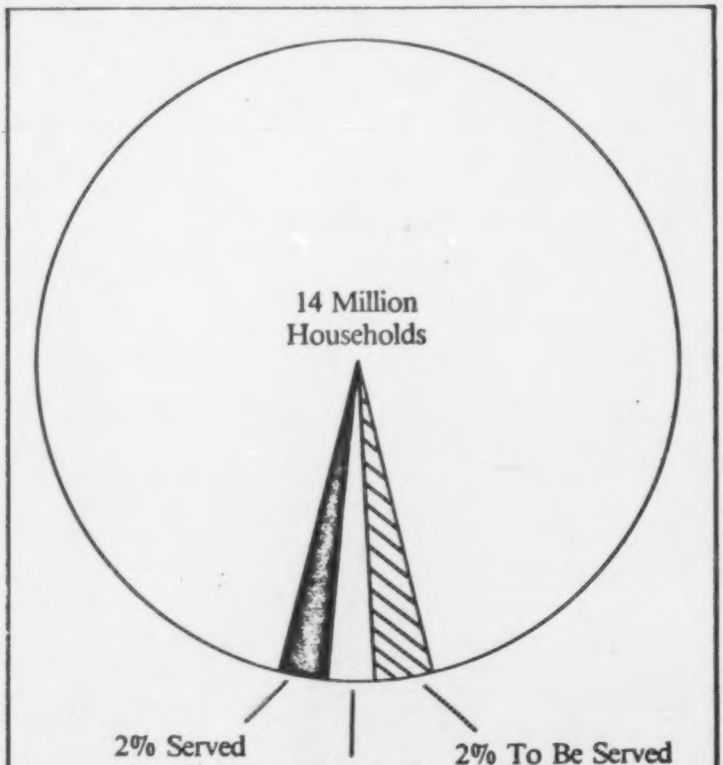
The weatherization effort is authorized by the Energy Conservation and Production Act of 1976, as amended by the National Energy Conservation Policy Act of 1978, and the Energy Security Act of 1980. Local organizations, usually community action agencies, implement the program. Labor is provided largely through the Comprehensive Employment Training Act (CETA) program.

SERVICES

Most of the homes weatherized under this program are caulked and insulated; some have storm windows installed. Other weatherization materials that can be installed include furnace efficiency modifications, clock thermostats, water heater insulation, vapor barriers, skirting, and water flow controllers.

The maximum expenditure per dwelling for materials and related costs is $1,000. This amount may be increased to $1,600 if CETA workers are unavailable. Incidental repair costs are limited to $150.

There are 14 to 16 million eligible households in the United States. Homes are currently being weatherized at the rate of approximately 30,000 per month nationwide. The following illustration indicates the program coverage to date.



FUNDING

Appropriated funds (dollars in millions) for this program by fiscal year are as follows:

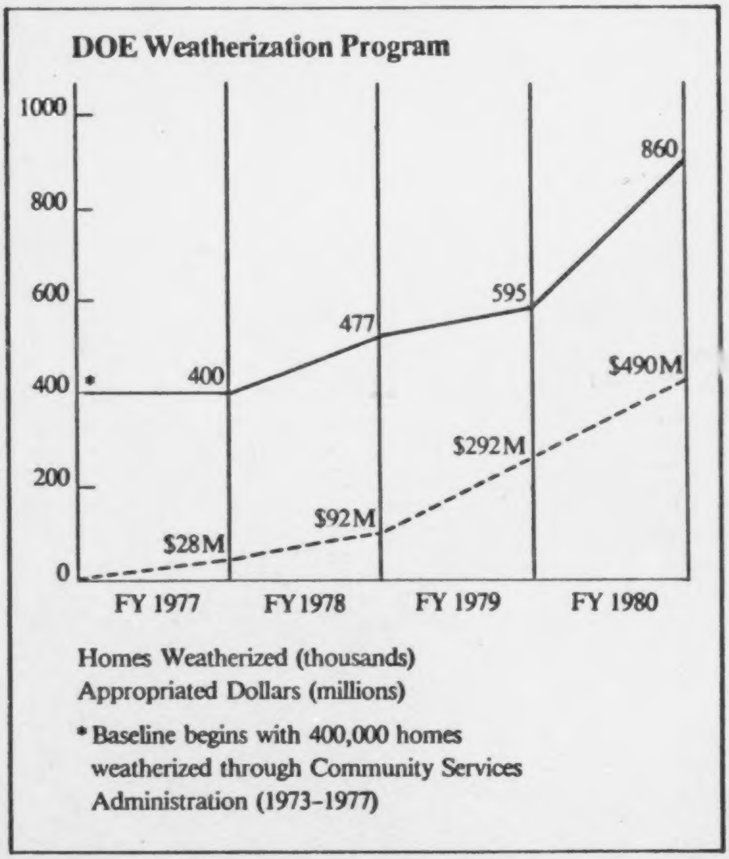
	Millions
1977	27.5
1978	65
1979	199
1980	199
1981	182

Funds are tentatively allocated to the States according to a formula based on the numbers of low-income households in each State, the annual heating and cooling degree days, and the percentage of total residential energy used for space heating and cooling. Funds are granted to the States based on their ability to expend those funds and to provide services to the low-income population.

ACCOMPLISHMENTS

The Federal effort to weatherize homes of low-income families began on an emergency basis soon after the 1973 oil embargo. In 1975, a formal weatherization program was set up by legislation to be administered by the Community Services Administration. This agency made grants directly to local organizations, which concentrated their efforts on inexpensive and easy-to-install measures. In three years some 400,000 dwellings were weatherized.

In 1976, Congress enacted the Energy Conservation and Production Act, authorizing a weatherization grant program to run parallel to and supplement the existing program. In 1979, DOE became the sole Federal agency responsible for weatherization assistance grants. From December 1977 through fiscal year 1980, some 460,000 additional homes were weatherized. Appropriations and results are reflected in the following graph.



DOE Weatherization Program

Homes Weatherized (thousands)
Appropriated Dollars (millions)

* Baseline begins with 400,000 homes weatherized through Community Services Administration (1973–1977)

The DOE has taken a series of steps in the past year that have strengthened the program's management and increased weatherization production and expenditures. Briefly, the program has:

Weatherized 265,182 homes in fiscal year 1980 with expenditures of $182,082,673. This compares to fiscal year 1979 figures of 118,200 homes weatherized and expenditures of $39,937,746. Production increased by 224 percent over fiscal year 1979.

Expended $178 million during the first 10 months of 1980 as compared to $94 million from 1977 to 1979.

According to a recent study, the equivalent of over 2 million barrels of oil will be conserved each year in the 860,000 homes weatherized so far through the DOE program, avoiding costs of $64.5 million. As a result, less petroleum is imported and the Nation's balance of payments is enhanced accordingly. At current fuel prices, the average homeowner saves $75 each year after weatherization.

The table below shows the distribution of homes weatherized by State through fiscal year 1980.

Homes Weatherized By State
(Through FY 1980)

Alabama	8,547	Missouri	26,916
Alaska	1,722	Montana	7,187
Arizona	2,226	Nebraska	8,142
Arkansas	8,707	Nevada	1,093
California	13,344	New Hampshire	4,252
Colorado	5,508	New Jersey	6,380
Connecticut	4,662	New Mexico	7,155
Delaware	1,205	New York	24,406
District of Columbia	1,611	North Carolina	8,254
Florida	1,893	North Dakota	6,261
Georgia	9,341	Ohio	16,298
Hawaii	-0-	Oklahoma	7,140
Idaho	4,428	Oregon	6,257
Illinois	16,128	Pennsylvania	40,421
Indiana	17,133	Rhode Island	3,306
Iowa	13,581	South Carolina	4,611
Kansas	6,416	South Dakota	5,489
Kentucky	17,085	Tennessee	13,172
Louisiana	3,825	Texas	10,904
Maine	7,175	Utah	2,975
Maryland	7,735	Vermont	3,095
Massachusetts	7,678	Virginia	13,558
Michigan	21,970	Washington	9,503
Minnesota	23,681	West Virginia	8,773
Mississippi	6,031	Wisconsin	8,326
		Wyoming	1,589

Mr. **Clayman**. Mr. Chairman, if you will forgive me——

Senator **Warner**. I will.

Mr. **Clayman**. I have to go, and I am not rude to these other folks, but I just need to go. Thank you very much.

Senator **Warner**. All right, sir. We respect your need, and we thank you for taking the time to come and provide some very valuable testimony.

Mr. **Clayman**. Thank you, Senator.

Senator **Warner**. And now we will return to Mr. Lash.

STATEMENT OF JONATHAN LASH, PRESIDENT, ENERGY CONSERVATION COALITION

Mr. **Lash**. Thank you, Senator. I am the president of the Energy Conservation Coalition. The coalition is an alliance of 15 national public interest organizations and about 150 local affiliates. The coalition was formed solely in order to advocate energy conservation programs and has been growing steadily since we formed it about a year ago.

We oppose S. 1544. We oppose it because we believe that if it is enacted it will crimp or destroy a collection of successful energy conservation programs that have operated at the Federal level resulting in energy savings for America worth many times what the programs would cost.

These programs, explicitly supported by both the House and the Senate, in the second budget resolution only 2 months ago, achieve efficient improvements that will not be accomplished by market forces.

Senator **Warner**. Let me interrupt you. We are going to put your statement in. Why don't you touch the high points? I am going to stay here as long as necessary, but I would urge you in deference to your colleagues——

Mr. **Lash**. Thank you, Senator. I tried to cut out some pieces at the start. Now there are three aspects of the bill that are most troubling. The first is the fact that it very significantly reduces the money that would have been available even under the second budget resolution. The second budget resolution had already cut approximately one-third of the money available for these programs included in this bill. This bill would further cut those programs by over 40 percent.

However, that cut will have less devastating effect, we believe, than the terms under which the block grants would be disbursed to the State. Most important is the fact that these programs, all of which are energy conservation programs, would be opened up to a variety of options, including supply investments.

There is nothing wrong in our opinion with programs that support energy supply programs, but these were not energy supply programs. There are conservation programs. The supply programs have not been opened up to conservation investment so we are taking an almost already reduced pot and opening it to many more hands to reach in. It doesn't require any suspicion of venality or irresponsibility to realize that the decisions as to how to spend money on the State and local level are political decisions. That is what they should be, but in that kind of political decisionmaking, we are not convinced that the energy conservation programs—low-income weatherization, schools and hospitals—will fare well.

Historically the experience has been that energy supply initiatives have very strong support and get a lion's share of the money at the Federal and local level.

The second problem is the matching aspect. In response to Senator Ford's questions, the representatives of the State and local government organizations all said they were willing to match but they weren't willing to match the level expected by this bill which in the coming fiscal year would be 30 percent and in subsequent years would be 50 percent.

Indeed the States where the weatherization program and schools and hospitals program are most important, those in the energy-consuming States of the Northeast and the Midwest, the States which have been hardest hit by energy price increases, are also those that are the most financially strapped and find it difficult to meet those matching requirements.

The bill makes an effort to apportion the block grants among the several States on the basis of geography and population. However, these are programs that should be apportioned on the basis of energy conservation need.

I listened while several of the State and local government organizations said they supported S. 1544 in concept but then recommended a series of changes. Those changes were so basic that if they were all accepted, S. 1544 would be a very different bill.

We would have no objection to taking these programs and renaming them block grant programs. We would have no objection to introducing somewhat more flexibility in the way they are administered provided they accomplish two things— they get sufficient amount of money to the local level, and they assure that that money is used for the weatherization of low-income houses, for energy conservation in schools and hospitals, and so forth. If those provisions are not included assuring money will be spent in that way, in fact we have taken a Federal energy policy and sent it to the State and said you make the decision about what the priorities should be, and then it really isn't a conservation policy. It is another form of revenue sharing.

Thank you very much, Senator. I would be delighted to answer questions when my colleagues are finished.

[The prepared statement of Mr. Lash follows:]

ENERGY CONSERVATION COALITION

TESTIMONY OF JONATHAN LASH

PRESIDENT, ENERGY CONSERVATION COALITION

BEFORE

THE COMMITTEE ON ENERGY AND NATURAL RESOURCES

OF THE UNITED STATES SENATE

ON

S. 1544, THE STATE AND LOCAL ENERGY
BLOCK GRANT ACT OF 1981

1412 Sixteenth Street, Northwest, Washington, D.C. 20036 (202) 797-6880

Conservation Foundation • Conservation Law Foundation of New England • Environmental Defense Fund • Environmental Policy Institute • Federation of American Scientists • Friends of the Earth • League of Women Voters of the United States • National Audubon Society • National Consumer Law Center • National Consumers League • Natural Resources Defense Council • National Wildlife Federation • Sierra Club • Solar Lobby • Union of Concerned Scientists

My name is Jonathan Lash. I am President of the Energy Conservation Coalition. The Coalition is an alliance of 15 national public interest organizations and 150 local affiliates representing over six million Americans. Our members are both advocacy organizations and groups and individuals concerned with energy conservation as a critically important pocketbook issue.

The Coalition's sole purpose is to promote rational policies toward energy use at the Federal, State, and local level. At present, the nation uses energy in an irrational manner. Our buildings, our vehicles, and our industrial processes are relics of an era of cheap energy. We continue to pay the ever increasing cost of operating these relics, although we could substitute intelligence, prudence, maintenance, and better equipment for expensive and insecure supplies of energy.

Study after study has concluded that we waste energy on an appalling scale, that we could obtain the same benefits using much less energy, and that we would thereby reap tremendous economic savings. Like government waste, however, energy waste is embedded in the system. We must pursue affirmative policies to eliminate energy waste or it will go on sapping the economic strength of businesses and individuals for years. The purpose of my testimony today is to urge you to preserve Federal energy conservation programs that will save energy, thereby improving productivity, reducing our need for imported oil, creating jobs, and reducing pollution.

We are opposed to S.1544. If enacted, S.1544 would cripple or destroy a collection of successful energy conservation programs that result in energy savings for America worth many times what the programs cost. These programs, explicitly supported by both the House and the Senate in the Second Budget Resolution only two months ago, achieve efficiency improvements that will not be accomplished by market forces.

Improvements in the efficiency with which we use energy provide virtually the only means by which we can reduce our energy costs in an era of rising prices. While high energy costs provide a strong incentive for efficiency improvements, those improvements will only take place if the person or institution paying the cost for operation of a device that consumes energy has the capital and knowledge necessary to modify or replace it. The programs affected by S.1544 are designed to provide the necessary information or financial assistance to permit the elimination of energy waste, where market forces alone will not do the job.

A year ago the Low Income Weatherization program was sealing cracks, plugging leaks and eliminating energy waste at a rate of 400,000 homes per year. That work will not be done if the program is eliminated. Families that started out with little to spare cannot pay for weatherization when they are also paying heating bills that have doubled since 1979.

The Department of Energy's July 1981 report on the state energy conservation programs estimated that they resulted in savings of 3.1 quads in 1980. Those programs will disappear if S.1544 becomes law.

S. 1544 would decimate the conservation programs it affects. The $200 million authorized by §7 of the bill represents a 40% cut from the levels agreed upon in the second budget resolution for the programs repealed by §8 of the bill. The $336 million

Reconciliation figure already represented a 1.3 cut from 1981 levels for those programs. The bill does not simply change the process for administering these programs; it cuts further a budget already reduced to austerity levels.

Drastic as they are, the cuts are not the most devastating aspect of the bill. Two other provisions will probably cause the elimination of the conservation programs covered by the bill in most states. Sections 5(a)(8) and 5(a)(10) of the bill open up the already curtailed funds to be used for energy supply programs. There is nothing wrong with energy supply programs, but federal energy supply programs and funds are not eliminated by this bill and shifted to block grants. The bill opens additional funds to energy supply initiatives while reducing the funds available for conservation. There is little likelihood that low income individuals, schools, and hospitals will be able to compete successfully with the energy supply industry for these funds at the state level. They have had little success at the federal level. The Office of Management and Budget recently calculated federal energy supply outlays including tax benefits at $17 billion, nine times the level for conservation even without new cuts.

The premise for a federal energy conservation program is that it is in the national interest to encourage and support conservation in certain specific situations. If the objectives of the conservation program are in the national interest, the decision whether to pursue them or to use the funds for some different purpose should not be left to the viscissitudes of local politics. The funds should be used only to achieve the goals set for the program.

It is not enough to say that the states are in a better position to decide how to spend the money than the federal government, for, if that were the case, the same rationale would apply just as well to the nuclear and fossil budgets.

Section 4(b) of S.1544 imposes a matching requirement on the states of 30% in the coming fiscal year and 50% thereafter. The matching requirement will effectively prohibit participation by many financially strapped Northeastern and Midwestern states, the very states that, because of climate, population patterns, and the age of existing structures, most need the building energy conservation programs that are included in the bill. Many of the states with sufficient financial resources to meet the matching requirement are energy producers with warmer climates and lower heating costs. Those states are likely to utilize the available funds for supply programs.

Finally, the allocation formula established by Section 3(a) of the bill disregards energy needs and historic patterns of investment under the conservation programs supplanted by the bill. The objective of the program should be to assure effective use of the funds, not to even geographical distribution.

This is a terrible time to dismantle programs that are working-- reducing energy demand and the need for foreign imports. Even where conservation programs are taken up at the state and local level, it will be months, perhaps several years before they can function effectively. Federal manpower will be diverted from running programs that save energy to writing new regulations to implement S.1544. Private concerns carrying out energy conservation work will have to stop and wait while states decide whether to participate, qualify for federal funds, hire personnel, and develop their own regulations and procedures. Low income families will face still another winter of crushing heating bills. All because successful federal programs were dismantled for no other reason than because they were federal.

Last spring the Administration said that the energy conservation tax credits would provide sufficient recourse for those struggling to invest in conservation while confronted with high heating bills and high interest rates. Now we learn, that these tax credits are among the "loopholes" in the tax system the Administration proposes to plug up.

There is a special irony in the fact that we are here testifying on this bill today, just as a new fiscal year and a new heating season are about to begin. The conservation programs were debated last spring. The Administration sought elimination of these same programs and substitution of a block grant system. This Committee, the Appropriations Committee, and the corresponding House Committees debated the issue. Yet, while the Congress accepted virtually all of the budget cuts proposed by the Administration, it rejected both the restructuring and the depth of the cuts proposed for these conservation programs. If there is to be a renewed debate on conservation, let it be in the context of the renewed debate on the budget. If the Administration proposes to eliminate these programs, let that proposal be debated. S.1544 creates the illusion of preserving conservation programs that will in reality be dismantled.

Virtually the only good news on the economic front these days is the continuing softness in oil prices. That softness is almost solely attributable to the slackening in world oil demand, a trend led by the United States, the world's largest oil consumer. How can we, in the face of those facts, eliminate cheap and effective programs that are helping to reduce our energy demand?

Other members of the panel will address the merits of the specific programs involved. I will be happy to answer questions.

Senator **Warner**. Thank you very much.

Ms. Bleviss.

STATEMENT OF DEBORAH LYNN BLEVISS, ASSOCIATE DIRECTOR, FEDERATION OF AMERICAN SCIENTISTS

Ms. **Bleviss**. Thank you very much, Senator. I am speaking here on behalf of the Federation of American Scientists, and I would like to address one part of the bill which addresses the repeal of quite a few of the information programs that have been instituted to date by the U.S. Congress.

Our membership strongly supports the President's belief that the free market is necessary and that energy prices should reflect their true market value which should include national security and environmental concerns.

However, we are just as equally convinced that that free market cannot exist and consumers cannot respond to prices unless they have the information on how to respond to them. They know that they have to do something about their energy. The question is how, what can they do?

Now I am sure that you and your constituents have experienced the fact that there is a lot of conflicting information out there in the marketplace. What they hear from their building contractor is different from their architect which is different from their fuel suppliers, and the consumers in general do not know how to respond, quite often tried to respond in some way, find that they ended up incorrectly and feel that they have been deprived.

Congress recognized this in 1978 and they enacted the Residential Conservation Service which was an attempt to provide credible, impartial, and uniform information across the country and that was to be offered through State utilities. Naturally this program was then in 1980 expanded to include commercial apartment housing. Again, the attempt of all these programs was to provide impartial, credible, and uniform information to all the parties in question.

Now what is proposed in this bill is to remove that authority and the question is how then are consumers going to be able to respond correctly and be able to pick out among the conflicting sources of information what they should actually do?

Our organization strongly feels that a free market cannot respond in any way without access to information, and we strongly urge that those provisions remain existing in law.

Thank you.

[The prepared statement of Ms. Bleviss follows:]

F.A.S.

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TESTIMONY ON S.1544
"The State and Local Energy Block Grant Act of 1981"

Presented By
Deborah Lynn Bleviss
Associate Director

Submitted to the
Senate Committee on Energy and Natural Resources
September 29, 1981

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*Nobel laureates

Mr. Chairman and Members of the Committee, I am here on behalf of the Federation of American Scientists*, to testify on S.1544, "The State and Local Energy Block Grant Act of 1981". In my testimony I will refrain from addressing either the specifics of the block grant, or the proposed deauthorization of the categorical grant programs which the block grant is to replace--others will address or have addressed these issues in their testimony. Instead, I wish to turn to those aspects of the bill which our membership is most concerned about, namely support for information and research. Specifically, I would like to address the proposed repeal of the Residential Conservation Service, the Commercial and Apartment Conservation Service, and the auditor training program, as well as the portion of the bill which permits states to use block grant money for support of energy research and development, whether conservation- or production-oriented.

Before addressing these specifics, however, I would like to speak for a moment on the present strategy the U.S. government is pursuing to promote energy conservation. Our membership strongly supports the President's view that energy prices should reflect their true market value (which must include such externalities as national security and environmental preservation) in order to signal the American energy consumers that it is time to conserve. However, they recognize that equally as important as getting the message to conserve is getting the information on how to conserve. The market cannot operate at all unless information that is perceived as credible and impartial is readily available so that the various actors involved can know how to respond to the price signals they are receiving.

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*The Federation of American Scientists is a unique, non-profit, civic organization, licensed to lobby in the public interest. It is composed of 5,000 natural and social scientists and engineers, including 50 percent of the living American Nobel laureates, who are concerned about science and society. Democratically organized with an elected National Council of 24 members, FAS was first organized in 1945 as the Federation of Atomic Scientists and has functioned as a conscience of the scientific community for more than a quarter century.

As important as information in a market-based society is support for research. Research to date at many academic institutions and national laboratories has demonstrated that conservation is not simply insulating attics and putting on storm windows. There are a whole host of ways in which energy can be used more efficiently, and we are only beginning to understand them. Indeed, the research that has been completed shows that there is almost a limitless well of opportunities to improve energy efficiency without adversely affecting life style. Such research must continue in a market-based society so that when consumers receive price messages to conserve their energy use, the knowledge will exist to provide them with information on how to accomplish this. Thus, both information and research must accompany any market-oriented policy aimed at yielding conservation of energy.

Residential Conservation Service

It was in recognition of the need for consumers to have access to credible and impartial information, that the Residential Conservation Service (RCS) was enacted in 1978 and later broadened in 1980 to include the Commercial and Apartment Conservation Service (CACS). Study after study, from such illustrious institutions as the National Academy of Sciences and the Solar Energy Research Institute, have shown that there is a tremendous potential for reducing energy use in our nation's buildings simply by using it more efficiently.

Yet, because there are so many players at work in the buildings sector, from architects, engineers, and builders, to fuel suppliers, insulation installers, and appliance manufacturers, all of whom often provide conflicting information to consumers about how to respond to rising energy costs, consumers inevitably find themselves confused, make mistakes about which energy conservation investments to make, and eventually end up disgruntled with the results of their efforts. They find that left to their own devices, they cannot control their energy costs, and as more and more of their disposable income goes to paying for those costs, they find they have less money available to meet other needs or luxuries.

Though the agent for the RCS program is a consumer's gas or electric utility, clearly one of the conflicting players referred to before, the fact that the utility is acting under federal supervision, with a nationally-uniform, federally-approved means of assessing which energy-conserving technologies to recommend, is meant to allay any qualms the consumer might have. Has that come to pass? Allowing for the problems any program has in its infancy, and for the fact that few states have been implementing RCS for very long, the answer appears to be a definite yes. One need only read of some of the rave consumer comments on MASSAVE, Massachusett's version of RCS, to verify this conclusion.

Of course, one can always ask, as the Administration is now doing, whether RCS is a proper role for the federal government to assume. Our membership believes quite strongly that it is. It is important not to forget ~~the effects that the~~ cutoff of Iranian oil in 1978 had on world economy and security, as well as the effect this country's conservation efforts since then have had on world oil price and supply. The potential for conservation that a RCS program could provide would certainly strengthen our ability to deal with future oil price shocks or cutoffs in supply. In addition, the potential that RCS holds for allowing consumers to control runaway energy costs, and thereby direct their capital to more productive ends bodes well for the economy, which the Administration has been actively working to reinvigorate.

One can also ask another question. It has been repeatedly pointed out that some utilities, such as Pacific Power and Light, had energy conservation delivery programs long before the Residential Conservation Service was enacted. If Pacific could do this, why couldn't other utilities? In other words, why make RCS mandatory, why not give utilities time to recognize there is a need among their customers to receive good conservation information and let them develop such programs on their own? Unfortunately, the Pacific Power and Light example is more the exception than the rule. In point of fact, a majority of the utilities in this country today still see conservation as contrary to their interests. Even the highly successful MASSAVE program would not have come into being without the enactment of RCS.

And even for those utilities that see a value to conservation, there are many roadblocks along the way that prevent them from developing a program that would be as successful as a nationwide RCS program. First, as mentioned previously, utilities are one of the many players from which consumers receive conflicting conservation information. The mere fact that they are perceived as being in business to sell energy often harms their credibility when they want to sell energy savings. Second, many utilities are too small to be able to support the research and development needed to come up with an effective conservation delivery program. Third, even if utilities develop good independent delivery programs, it is likely that their customers, upon learning of the significant differences among the utility programs that would naturally be expected, would question their credibility. Fourth, utilities in pursuing conservation activities independent of federal restrictions might very well concentrate their efforts on only a portion of their customers, where they can get the biggest "bang for the buck", thereby leaving many of their customers uninformed. For example, a utility with a heavy industrial load might choose to concentrate its auditing efforts on its industrial customers, without addressing its residential customers. Finally, many utilities are uninterested in directing their programs at sectors such as low income housing and rental housing which RCS and CACS address, and which often have the most difficult time finding credible information. To address such sectors is considered out of the perview of utilities, and more appropriately a role of government. To quote one utility executive, "the federal government should not expect utilities to assume the role of policy making."

Commercial and Apartment Conservation Service

The arguments for the Commercial and Apartment Conservation Service are the same as for the Residential Conservation Service. If anything, those served by the former program need credible information even more desperately than those served by the latter. Particularly in the case of apartment housing, the responsibility for energy is split between two traditional adversaries, the landlord, who owns the building and energy-consuming equipment, and the tenant, who actually consumes the energy. Making certain that both landlord and tenant are informed of the value of conservation to each party, as well as what can be done to achieve such conservation is quite difficult, and partly accounts for the lack of penetration of energy efficient improvements in apartment housing to date. Small commercial buildings, which are also covered by CACS, suffer from many of these problems as well.

Auditor Training

The federal auditor training program follows logically from the federal RCS and CACS programs. If the federal government, in order to ensure access to credible and impartial information for consumers, sets a uniform minimum standard for conservation delivery programs, it must also set a uniform minimum standard for those actually carrying out the programs, namely the auditors. In order to meet those standards, it follows that some type of training program must be offered.

There is no doubt about the need for both training programs and a minimum standard of excellence for energy auditors. Over and over again, states, cities, and utilities involved in conservation delivery programs have learned the pitfalls of having poorly trained personnel carry out their programs. Stories abound about consumers who encounter auditors who two weeks previous had been meter readers. Needless to say, the success of even the most well-thought-out conservation delivery programs is limited by the personnel whom consumers actually encounter. If the federal government is committed to a residential, commercial, and apartment conservation service, it must also be committed to an auditor training program.

Energy Conservation Research

Before concluding, I would like to turn to one aspect of the Block Grant Act which would make energy research and development, whether conservation- or production-oriented, a permissible activity on which to use grant money. While our members applaud the recognition in this bill of the need for further energy conservation research, they are concerned that research pursued in this manner will ultimately prove expensive and useless.

In the relatively short history of energy conservation research, it has been repeatedly learned that with a limited pot of money, it is more productive to centralize the research activity in very few institutions in order to limit the repetitiveness of the research and thereby maximize the potential payoffs. In the 1982 Reconciliation, Congress reduced conservation research funding about half to almost $200 million. Even though this research is limited to very few institutions, concern has been expressed about the quality of the research that will result from such low levels of funding. This bill proposes to take about the same amount of money, distribute it among 50 states, and then further dilute it by having conservation research money compete with worthwhile weatherization, schools and hospitals, and emergency energy programs. Does anyone seriously think that any good conservation research will be forthcoming? Even assuming some worthwhile research results, the duplication in that research among the 50 states would be a needless waste of limited resources. Rather than turning over its research responsibility to the states along with its commercial programs, the federal government, from a fiscal restraint perspective, should be concentrating on maintaining and upgrading its central role.

In conclusion, then, on behalf of the Federation of American Scientists, I would like to stress the importance of accompanying the market-oriented policy endorsed by the President as a means of encouraging energy conservation with support for information and research. Without credible and impartial information, consumers do not know how to respond to the price signals they are receiving. And without research support, the knowledge base is not present to provide that information. In order to insure the availability of information, the federal Residential Conservation Service, Commercial and Apartment Conservation Service, and auditor training programs must be preserved. In order to insure adequate research, it is important that the federal government maintain a strong central research program, rather than farm it out to each of the 50 states. Thank you.

Senator **Warner**. Thank you very much. That is clear and to the point.

Ms. Hansen.

STATEMENT OF DR. SHIRLEY HANSEN, ENERGY ADVISER TO THE AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS

Dr. **Hansen**. Thank you, Senator. I am here on behalf of the school superintendents across the country, and I am sure I don't have to tell you or the committee that education is in dire financial trouble, and you hear this on so many sides, but education is the only sector of the economy that cannot pass through higher energy costs. Everybody else can raise fees, the price of goods or service fee charges. The public schools cannot, and they cannot respond to the marketplace pressures that are the policy of the present administration by financing Government structure.

This is not possible, and the experience has been bitter for the schools. Starting in 1973, the cost per pupil was only $20. Last year it was $100. It is projected to be better than $300 by 1985. That is a 1,500-percent increase on a very tight and declining revenue budget.

In addition to that, the schools have heavy reliance on natural gas. Whereas natural gas is 25 percent of the market, 80 percent of the schools use natural gas as their primary fuel, so deregulation is going to hit them even harder.

Every unnecessary cent that goes up in smokestacks reduces education's effectiveness. It wastes energy, and it wastes human potential. These are austere times, and precious dollars that need to go for conservation for the elderly are terribly important, but it is also important that we do not mortgage the future of our young people to pay the fuel bill.

Fortunately, the schools haven't been totally resigned to this fate because they have reduced consumption by nearly 40 percent largely because what we inhabit, much has been done to reduce that consumption. The first year that the schools and hospitals program impacted on the schools, consumption dropped 16 percent as compared to 2.3 from the previous year. If we take a look at that 16 percent, that equates out to 720 million tax dollars in 1 year, or 32.4 million barrels of oil equivalent in 1 year, and this fortunately in cumulative terms, if just one-half of that jump of reduced consumption is attributed to schools and hospitals, the saving for that 1 year alone is $308 million, and over an anticipated 10-year life with the kind of measures installed, we are talking about a saving of more than $3 billion to the schools, and that is where Federal cost share of $140 million comes in—I think that is a pretty good return on investment, and one that I would hope that we could continue to support.

Contrast the idea of a schools and hospitals investment of around $5 a barrel of oil equivalent to helping schools conserve energy to spending more than $30 to send it overseas. It is a program of proven benefit. Both the EPAA and the GAO have said it has a strong energy cost benefit to the Nation.

Now the concept in S. 1544 of more flexibility is sound, and the concept has school administrator support, but AASA has to ask why attempt to fix something that is not broken? This program is working, and it is working so well and participants in the field strongly support it. This bill would eliminate schools and hospitals program. It obliterates existing programs into an open-ended revenue-sharing effort. There is no assurance that it would preserve the service now provided to the schools. There is no assurance that it would be cost effective to the Federal Government. There is no assurance it would be energy effective, and it removes any concerted conservation effort.

It is a dramatic drop in the commitment of the Federal Government to conservation.

It has been said today that it would be possible to play politics with this program, and we heard from the former panel what reminds me of "The Musicman." "Now I know you are all of the right kind of people" and that is true, and most of our Governors and our local administrators are very concerned about energy and want to best serve their people.

Unfortunately, education has had some bad experiences with being at the discretion of political activity. I think regulations are written to assure even-handed attempts to effect congressional action. A program without accountability, a program that will not serve private schools, a program that provides no transition from the present program to future ones, that has carte blanche, that says anything goes to the State and you can tell us afterward how you did it, it is an after-the-fact judgment. It does not ask the States to even submit plans of how they are going to spend this money. It allows them to do whatever they please as long as it is, quote, unquote, energy related.

I must interject here one thing. The National Governors Association urged a program to be changed to a loan program for schools and hospitals. This was carefully considered by the Congress when the schools and hospitals program was implemented. It is a program that will not work well for schools. The problem that the local school people have is the authority to borrow money and it doesn't matter who they borrow it from, the State or a bonding institution or wherever it is. They must get authority to borrow. A grant program is a much sounder approach.

In 2 days the new regulations for the schools and hospitals program go into effect. It has broad support. The States have publicly said it will give them all the flexibility they need to make it effectively work, and we commend the DOE for the way they sought participant input to make sure that the regulations would be more responsive to participant needs, and we also would like to at this point to commend the Office of Management and Budget who hasn't been getting too many commendations lately, for this support they have given the schools and hospitals program, and certainly the Congress for the kind of needs they have recognized in this effort.

Ironically right now the Department of Energy, the current administration does not reflect Congress or OMB's interest in the program. The headquarters staff of this program is being dismantled as we sit here. The expertise for this program is either being fired or transferred, and whether it is by design or misadventure, the schools and hospitals is now dysfunctional.

DOE by administrative fiat is precluding congressional prerogatives and is disregarding the considerations before this committee today. AASA is concerned with this unilateral that that will negatively impact on the schools' opportunity to participate in the program, and we believe that it violates the representative form that Congress provides.

Senator **Warner**. Excuse me. I have your points very clearly, and the record will reflect it. Now I want to leave time for Mr. Hill here.

Dr. **Hansen**. In summary, we just object to the eradication of the schools and hospitals program, and urge that if the program is revised in a rewrite of the legislation that some identifiable retention of the schools and hospitals and the way that the schools would be served remain there.

Thank you, Senator.

[The prepared statement of Dr. Hansen follows:]

Office of
Governmental
Relations
AASA's Voice in Washington

AMERICAN ASSOCIATION OF
SCHOOL ADMINISTRATORS

STATEMENT

on

S. 1544

The State and Local Energy Block Grant Act

Of 1981

Hearing

before the

Senate Committee on Energy and Natural Resources

Presented by
Dr. Shirley Hansen
AASA Energy Advisor

September 29, 1981

(703) 528-0700
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Mr. Chairman, Members of the Committee, I am Shirley Hansen, Energy Advisor to the American Association of School Administrators (AASA). I appear today on behalf of AASA whose members is comprised of 18,000 school administrators, primarily school superintendents, the chief local school officer. As such they represent the educational leadership of this country. The high priority they have assigned energy is long standing and well documented.

On behalf of the Association and its members, I would like to express our appreciation for the opportunity to appear before you today and offer comments regarding S.1544, "The State and Local Energy Block Grant Act of 1981."

Education is in dire financial trouble. Locked into revenues passed one or two years earlier; trapped by sudden cuts in those revenues; and strapped by contracts requiring certain levels of expenditure and laws that preclude deficit spending, the institution of education is particularly and peculiarly vulnerable in our present unstable economy.

Against declining revenues and out of date rigidly set budgets, escalating, energy costs have a severe impact. The public schools are the only sector of the economy that cannot pass through the rapidly rising costs of energy. Industry can reduce the size of the product or raise the price. Others can increase charges or fees. The schools must ask voters for more revenues or cut programs.

The problem is exacerbated by the World War II "baby boom" school buildings. Approximately 60 percent of the schools in use today were built in the era when space was critical and energy cheap. The nation and education are paying dearly for the energy burden these buildings place on us all -- both in wasted energy and wasted tax dollars.

In the past 7 years, since 1973, the cost of energy has gone from $20/pupil to over $100/pupil. By 1985, the projected costs are expected to exceed $300/pupil. In just twelve years the cost will have risen over 1500 percent.

These projections do not consider the decontrol of natural gas. Decontrol will hit education particularly. Natural gas has about 25 percent of the market share, but nearly 60 percent of the schools use it as their primary fuel. Government actions to artifically hold down prices during the time most schools were built prompted this condition. Decontrol will add an additional burden on the schools. Continued federal assistance to reduce consumption and ease this blow is warranted.

Every unnecessary cent that goes up the smokestack reduces education's effectiveness. Denial of assistance to help the schools reduce energy not only wastes energy -- with all its economic implications to the schools and the nation -- but wastes human potential.

We are morgaging the future of our young people to pay the fuel bill.

Fortunately the schools have not been resigned to their fate. From 1973 to 1980, they reduced consumption more than 40 percent. It is an accepted fact that reducing consumption in a buildiing becomes progressively more costly and difficult. Therefore, it was exceptionally gratifying to find that in the first year the Schools and Hospitals Program (NECPA, Title III, P.L. 95-619) impacted at the local level, (1980) the school energy consumption dropped a significant 16 percent.

The present fuel bill to the nation's schools is approximately $4.5 billion dollars. In just this past school year that 16 percent reduction freed about

$720 million tax dollars so they could serve students' learning needs. The conservation strides made by the public schools in 1980 reduced our nation's energy consumption approximately 32.4 million barrels of oil equivalent (boe).

This figure takes on added significance when its recognized that these are recurring savings. From the federal assistance provided by just one year of the Schools and Hospitals program, those savings are cumulative year after year. If only half of the jump from the 2.3 percent energy savings in 1979 to the 16 percent savings in 1980 is attributed to the schools and Hospitals Program, the benefits from the program would be $308 million for one year. Cumulatively, over an estimated 10 year life of energy conserving measures, the results could exceed $3 billion in current dollars. Not bad for a federal investment of $140 million.

Preliminary, program evaluation data by the University of Wisconsin shows that one barrel of oil equivalent (BOE) for savings attributed to operations and maintenance changes stemming from the program's Energy Audits is $2.28. The Federal share cost per BOE for energy conservation measures figuring a ten year useful life measures is $4.31 for hospitals and $11.20 for schools. This certainly compares favorably with the $30-36 a barrel our nation is sending to foreign hands.

The Schools and Hospitals Program has already proven itself to be an exceptionally effective energy saving program. Recent reviews of the program by the Environmental Protection Agency and the General Accounting Office (GAO) call for the continued support of the program. The June 17, 1981 GAO report entitled "Views on Energy Conservation and the Federal Government's Role" notes, "The administration's view is based on the premise that market forces will assure that energy conservation will be achieved." Regarding exceptions to this premise, the GAO commented,

> Overall, we agree with the administration's decisions to continue a low-income weatherization effort, energy conservation assistance to schools and hospitals, and energy conservation tax credits."

The program has demonstrated a strong energy cost benefit to the nation. At the same time, it helps keep dwindling education dollars in the classroom and alleviates the local tax burden. "Such initiatives can contribute to achieving energy conservation by overcoming financial barriers which inhibit consumers' efforts to implement energy conservation measures," according to GAO.

There is a critical need to reduce energy consumption. Conservation through price will not work in the public schools. Education's financial and governance structure does not allow it to respond to market place pressures. Education does not have the resources to do the job. The Schools and Hospitals Program, has served this need very well.

AASA strongly believes that the National Energy Conservation Policy Act, Title III should be retained as an identifiably entity. It should not be submerged and left to the whims and political vagaries of state administration.

Education has been down that road -- unfortunately. As an example, in the late 60's - early 70's the State of Michigan allotted all of it's Elementary and Secondary Education Act, Title III funds to Detroit. We oppose the revenue sharing approach put forward in S.1544.

The block grant approach as proposed in S.1544 does not assure that the schools' needs will be served. AASA strongly opposes a block grant program that does not provide some state guidance toward meeting education's energy needs.

To take a proven program and obliterate it into a myriad of fragmented and unrelated energy programs put forth in S.1544 is a tragedy. After carefuly reading, the overriding question is: what assurance is there under this bill that the schools would receive any assistance?

The authorization to appropriate funds for all the programs struck down in Section 8 of S.1544 is reduced to an authorizing level of $200 million. A severe cut back. The problem is compounded when one views the broad array of potential recipients for this reduced support.

To the extent that commercial buildings have tax credits this bill is a license to double dip. Given such limited resources it seems inconceivable that supply research and development is part of the recommended list.

AASA recognizes the austere times the Federal government is facing. It accepts the need to share precious conservation assistance with other needy causes. But to lose valuable help to a piecemeal state by state supply research effort is intolerable.

AASA hesitates to react to specific provisions in the bill fearing it will be construed that the rest of the bill is workable and has our support. This is not the case. The following concerns are raised in the hope that they will be considered in any rewrite of the legislation:

- What provisions have been made for the transition period from existing authorized programs to the procedures in S.1544.
- What about the grants now in the field? How will they be administered? What, if any, obligations do the grantees face?
- Is it congressional intent to deny assistance to the private schools now served under NECPA, Title III?
- How will the states be held accountable?
- What constraints will be imposed to assure that this is a "block" of irradicated programs and those in the block will be served?
- Why are energy audits and technical assistance for residences and commercial buildings suggested as a use for grant funds and not for schools and hospitals?

As far as NECPA, Title III goes, S.1544 tries to fix something that isn't broken. In just two days, the revised regulations (published in the Federal Register on May 21, 1981) go into effect. The program and the new regulations have broad and strong field support. They reflect the Administration's desire for stronger State responsibility and flexibility.

In fact, the States have publicly stated that the revisions give them all the latitude they need to run the program effectively.

AASA commends the Department of Energy (DOE) for the model way it set about seeking input to make the program more effective and responsive to participant needs.

AASA would also like to recognize the support this program has received from the Administration through the Office of Management and Budget in earlier appropriations efforts. The Association is particularly gratified that the Congress has recognized the unique problems and needs this program serves by continuing to support funds for the program.

It seems ironic that support is not reflected in the current administration at the Department of Energy. Even as we sit here the headquarter's program office is in effect being dismantled. Nearly all those with expertise are being fired on transferred. Whether by design or misadventure the current actions within DOE will make the Schools and Hospitals Program dysfunctional.

DOE by administrative fiat gives strong evidence of precluding Congressional prerogatives. The Department's actions in effect, disregards many of the considerations before the Committee today. The Association is deeply concerned that such unilateral actions by an agency can impact negatively on the assistance to schools presently afforded under law. Further, it violates our opportunity to be heard in an orderly representative process which is the bulwork of our government.

The Association strongly asserts that the schools can best be served by the Schools and Hospitals program as presently constituted. It opposes a block grant effort that does not assure identifiable assistance to schools. The Schools and Hospitals program is too young too worthwhile to be buried alive. If an energy block grant is inevitable, then we beseech the Committee to assure that the desperate energy plight of the schools is not lost in the crowded block.

Thank you for the opportunity to share our concerns with you.

Senator WARNER. Thank you very much for a clear and precise presentation.

Mr. Hill?

STATEMENT OF CHARLES E. HILL, MANAGING ATTORNEY, WASHINGTON OFFICE, NATIONAL CONSUMER LAW CENTER

Mr. HILL. Thank you, Senator. The National Consumer Law Center likewise opposes S. 1544 as written because we fear that under it a substantial weatherization program for low-income consumers would come to an end.

We oppose it because we believe that there is currently an already functioning program which is delivering these valuable services to low-income people.

I would like for a minute first to speak on that latter point because I think it sets the context in which this bill impacts on weatherization and ought to be viewed.

It is also interesting to note that the Department of Energy, which has played a major role in the recent success of this program, is very reluctant to tout that success, a rather unusual situation in Government. This program 1½ years ago was plagued by major difficulties. It had a backlog of somewhere in the neighborhood of $300 to $400 million unspent. The beneficiaries of the program were not being served.

In part because of the interest of this committee and Congress as a whole and some publicity in the media, the Department of Energy went back to the drawing board, made some major changes, and brought about a dramatic turnabout in the results that were being brought about under this program.

The result now is that the backlog is essentially gone, that last spring two States had to close down their programs, essentially close down their programs because they were out of funds, that most States are limping toward the end of the fiscal year greatly reducing the level of production and waiting for the new funds, and that—and maybe this is the best touchstone for what this program has done and can do—last December before the States began to cut back in order to make money last, the program was weatherizing homes at the rate of about 400,000 units a year and was spending funds at a rate on an annual basis of about $400 million, twice the level of appropriations that Congress had provided.

In short then, this program is now producing results, results that are, that have been documented in some recent studies that are mentioned in my testimony.

In exchange for this program that is now working after a great deal of difficulty admittedly, we have the opportunity for the States under S. 1544 to use some of the funds provided for weatherization activity. I submit that for very practical reasons, that won't happen, particularly at the appropriations or authorization level of $200 million.

That is not to say that there is anything venal or corrupt about State officials, about the people who will be making these decisions. I think it is to say that politics inevitably will play some role, and they will play some rule under a very difficult situation—State governments trying to deal with a host of demands and very legitimate demands on very limited funds are bound to provide those funds to those projects which have to some extent the most political payoff but also real visibility.

I dare say that in competition, particularly at a $200 million level, with the various activities that were funded by the specific programs that are coming to an end, low-income weatherization would not fare well, but this bill authorizes expenditures even on the conservation front much broader than just the programs that are coming to an end. For example, it would authorize expenditure of funds for conservation in the transportation area. In other words, there are going to be a host of demands even in the conservation field against which low-income weatherization, weatherizing low-income homes will not stack up well.

I think the addition of the avenue to fund conservation supply activities through this bill really puts the icing on the cake or the nail in the coffin for low-income weatherization activity. I don't think that even in those States where there might be inclination to provide funds for lowincome weatherization when there is pressure that is brought forward to put funds in the supply activities, low-income weatherization would be the further loser.

In conclusion, I would just like to stress that this program was set up initially to serve a series of very important national aims, social welfare aims, energy conservation aims, and a very important subsidiary employment aim. Those aims are still of great importance.

I think they are still very legitimate, and I hope that this committee and the Congress as a whole act to preserve a program that serves those ends, and as John indicated, we at the National Consumer Law Center would certainly be very happy to work with staff and also work with the people on the preceding panel to alter S. 1544 to serve some of those ends.

[The prepared statement of Mr. Hill follows:]

TESTIMONY

Before the Senate Energy Committee

Tuesday, September 29, 1981
By Charles E. Hill
National Consumer Law Center

Mr. Chairman, Members of the Committee, my name is Charles Hill, and I am the managing attorney of the Washington office of the National Consumer Law Center, a non-profit organization dedicated to the representation of the interests of low-income consumers in the consumer and energy fields. For some time now, the Center has been monitoring the progress of the Federal Government's low-income weatherization effort, as well as certain other federal energy programs, and I appreciate the opportunity to come before you today to address the likely impact of S.1544 and other energy block grant proposals upon the poor.

Before discussing the merits of the proposed legislation, I would like to sketch briefly the country's energy situation, as it affects the poor.

First, heating oil prices have essentially doubled since 1979, and natural gas prices have risen over 40% during this same period;

Second, the Department of Energy's Fuel Oil Marketing Committee, in a 1980 report, found that as a result of such increases, and of price shocks earlier in the 1970's, low-income households spent almost 25% of their total income on home energy, with a much higher percentage being spent in winter months (in fact, expenditures often exceed income in winter months in northern states);

Third, FOMAC further found that low-income households expend approximately four times the percentage of their income on energy as do median income households;

Fourth, at the same time, low-income households utilize roughly 25% less energy than the average household, indicating that such households are already doing essentially all they can on their meager budgets to reduce energy consumption;

Fifth, the poor indisputably live in the Nation's oldest, most run-down and least weatherized housing, a factor which results in energy expenditures substantially out of proportion to warmth or cooling obtained;

Sixth, as energy costs continue to rise (with the possible exception of heating oil), the energy assistance program -- essentially a stop gap measure carrying the poor from one year's crisis to another, but an essential measure nonetheless -- is facing possibly major cuts, as much as 33% if the Administration has its way.

In short, the poor are in an absolutely impossible energy predicament, faced with staggering bills and no way to get a handle on the problem.

Having sketched this situation, I must admit to being a bit mystified, as well as deeply concerned by the fact that this Committee is now giving serious thought to action which would bring to a close the only real key to these difficulties, the admittedly modest weatherization program operated by the Department of Energy. I am mystified in large measure because, less than two months ago, Congress passed legislation authorizing a total of $363 million for state and local energy conservation efforts; in the process, it adopted a Conference Report which expressed "strong support for continuation of the low-income weatherization program" and also provided a firm recommendation of $175 million for this effort.

I am further mystified because this action is being considered at a time when the weatherization program has finally overcome some major difficulties and is now successfully weatherizing large numbers of low-income houses. Moreover, it comes at a time when the very substantial energy savings the program has been producing are being documented. Frankly, under the circumstances, and with another winter rapidly approaching, one would hope that Congress would be intent upon promptly winding up the appropriations process for the program so that states already out or running out of weatherization funds could press ahead with their work.

The subjects of DOE's recent success and the program's energy savings deserve some further mention. As the Committee well knows, this program had a very substantial backlog of unspent funds in the spring of 1980. We, and other poor people's representatives with whom we work, were very critical of this program for that reason. Over the last year, however, through changes in the operating procedures and a real effort at all levels, that backlog has disappeared. In fact, improvement was such that last December (before state programs began to curtail operations in order to make funds last), the program was weatherizing at an annual rate of 400,000 units and expending funds at a rate of $400 million a year - over twice the program's appropriation level. Illustrative of the turn-around is a June, 1981 report on Pennsylvania's program which I came upon while preparing my testimony. That report, issued by the Pennsylvania Department of Community Affairs, indicates that in May of 1981, 2,148 units were completed. In the comparable month of 1980, only 1,025 units were completed.

As for energy savings, recently released National Bureau of Standards findings on the energy savings in a $1700 optimal weatherization package indicate an average of 39% energy saved. See Optimal Weatherization (Proceedings of the National Conference on Optimal Weatherization - December, 1980, sponsored by the Community Services Administration, National Bureau of Standards, et al.) (1981) at pp. 18, 26. Similarly, an analysis of various state energy savings data, done by Urban Systems Research and Engineering, Inc. for DOE, points to energy savings in the 21-29% range ("Analysis of Preliminary State Energy Savings Data", April, 1981), while a broad based analysis of existing studies on weatherization efforts conducted by the Consumer Energy Council of America shows energy savings in the DOE program of roughly 27%. (It is my understanding that this latter study will be attached to the testimony of Jacob Clayman, President of the National Council of Senior Citizens.) It is also important to note that these studies demonstrate the cost effectiveness of this solution to low-income energy needs.

In light of these results and this progress, it seems to me that to tamper in any basic way with the weatherization program would be a grave mistake. A program which has finally, with great effort, begun to prove itself needs a period of stability to build upon its success, and to reach its full potential. And the people who have made it a success need to receive the message that their efforts are recognized. To make radical changes now, by turning the option of whether or not to continue low-income weatherization over to the states would, I submit, send out the wrong message about the value of energy conservation and about effective government operations, while doing substantial damage to this important effort.

Accordingly, we strongly oppose S.1544. Our opposition is based on the firm belief that S.1544 would in fact mean the end of a substantial low-income weatherization effort. Moreover, even if unfettered state decision-making resulted in a continuation of some significant level of weatherization, we think the bill is fatally flawed as a national vehicle to deliver those services.

A starting place in assessing the likelihood of serious weatherization activity under S.1544 is its level of authorization, $200 million. This figure is only slightly above the FY 1981 appropriation for weatherization alone and is only half what the weatherization program was effectively utilizing late last fall. In short, the funding level is grossly inadequate to the weatherization needs, and other energy conservation needs, served by the replaced programs. This funding level rings a particularly ominous note for weatherization, because of its constitutency and the potential competitors for scarce funds. Stated most bluntly, low-income consumers' needs will not fare well in competition with other activities currently carried out under DOE programs to be folded S.1544 block grant. The poor simply lack the political power and weatherization lacks the tangible, visible benefits to attract a significant portion of the allotted funds during the state decision-making process. This is doubly so in the current tight fiscal situation in the states, particularly when the states do not see themselves as having the direct stake in energy savings and energy policy that the federal government has.

All of this would be true if the funds could only be used for energy conservation activities. But section 5 of the bill authorizes expenditures on energy "supply activities", as well as conservation efforts. This broad authorization turns any rationale for the block grant effort on its ear, by throwing the state decision-making process for these limited funds open to totally different types of ventures, pressed by markedly more powerful interests. All energy conservation efforts will be the losers under such a scheme, weatherization most of all.

There is another provision of S.1544 which means that in at least some states there would probably be no weatherization activity under this proposal: the matching funds requirements of section 4(b). Given the pressing financial situation of many states, particularly Midwestern and Eastern states where the winters are harshest, the 30-50% matching requirement will simply mean that some states will not take their share, or all of their share. Hence, residents in these states, previously served by these various programs, will no longer receive the benefits. This result, I believe, overcomes any rationale offered for the matching funds concept.

In summary, I submit that adoption of S.1544, would effectively mean the end of any significant low-income weatherization effort in this country.

But even if these shortcomings could be eliminated, through a larger authorization, the earmarking of a percentage of funds for weatherization and a dropping of the matching funds requirement, S.1544 would still be a flawed vehicle. First, its allocation formula is drawn without any consideration to energy use or need. While this may make sense for an energy supply bill, it makes no sense in a program designed to replace a host of energy conservation programs, including a low-income weatherization program.

Second, S.1544 provides no guidelines or standards on such matters as eligibility, nature of weatherization efforts, weatherization standards, etc. I express concern about this not simply because I think it important to save a national weatherization effort, with some uniformity and equivalency across the country, but also because the current delivery system and set of standards, which are finally proving themselves, are so directly threatened by this approach. Having finally solved some basic problems, the program now needs a period of stability to really consolidate its progress. The open-ended provisions of S.1544 almost assure the opposite. In many cases, the current delivery system will be replaced by one which will experience a new round of start-up difficulties, and further uncertainty will be engendered.

In addition, S.1544 provides for no meaningful data flow or reporting. As a result, there will be no required information flow concerning how the funds are used, what they accomplish, etc. This absence of accountability is unnecessary and unwise.

In assessing S.1544, particularly in its impact on the weatherization effort, this Committee will have to go back to some very basic points. This program was initially set up because it fulfilled a national goal of helping the poor deal in a more permanent way with their peculiar energy predicament, in the process of reducing our foreign energy dependence. It did so in a way which offered to relieve some of the pressure on the energy assistance program, a program now facing possibily massive cuts. At the same time, it offered the prospect of critical jobs for the relatively unskilled. In other words, the program served what were perceived as important social welfare, energy conservation and employment goals. We submit that those goals are still important and that the program's recent success makes them attainable in significant measure, if an important element of stability and continuity is maintained in this effort. Should Congress decide that these goals no longer hold national significance, perhaps S.1544 is an appropriate mechanism to allow the states limited funds to pursue some local or regional ends in the energy supply and conservation fields. But as a vehicle for obtaining significant energy conservation ends, particularly for the poor, it will fail to produce results.

For the Committee's perusal, I have attached the testimony of Anthony Maggiore, Jr., Associate Director of the Community Relations - Social Development Commission of Milwaukee County, which was delivered before the House Energy Conservation and Power Subcommittee of the House Energy and Commerce Committee last May, on similar block grant legislation. I do so because, while we make many of the same points in criticizing this legislation, Mr. Maggiore looks at the proposal from the perspective of one in a local planning and service delivery agency, close to the state decision-making process which would govern the distribution of funds under a block grant approach such as that provided by S.1544.

Thank you.

SUMMARY TESTIMONY
MAY 28, 1981

"ENERGY BLOCK GRANTS-IMPACT ON LOW INCOME HOUSEHOLDS"

Testimony of Anthony J. Maggiore, Jr., Milwaukee, Wisconsin to U. S. House Subcommittee on Energy Conservation, and Power

SUMMARY

I. 14 Million Households are currently defined as low income in the United States (OMB Guidelines).

II. 1 Million of such households have been weatherized through the Federal Low Income Weatherization Program sponsored by the U.S.Department of Energy.

III. Low Income Households are currently spending between 20 to 30% of their income on household energy. They also pay nearly 4 times more the percentage of their income on household energy than the average American Household.

IV. Recent studies of weatherization programs indicate annual household savings of 20-25%, conservatively.

V. The current DOE Low Income Weatherization Program has improved dramatically during the past year weatherizing over 311,000 housing units in Calendar Year 1980.

VI. Energy Block Grant Proposals would not assure the continuation of the Low Income weatherization program. Low income people do not have the political organization and influence to compete for funds under a Block Grant with other more powerful special interests on the state and local level. Thus, low income people need the protection of the Federal government through a categorically funded program to assure their needs are being met.

VII. Energy block grants do not include income eligibility guidelines, performance and service standards, adequate reporting and accountability mechanisms, and limitations on Administrative costs.

VIII. It is probable that state and local government will utilize block grants to offset fiscal pressures on the state and local tax dollar. Thus, continuation of a low income weatherization program would be jeopardized.

IX. The current effective operating low income weatherization program with trained personnel, management systems in place with existing space vehicles, tools and equipment would be, in all probability, dismantled. It would be cost inefficient to dismantle the current program and at a later date, initiate another program.

X. The current program should continue on categorical program funded at a $400 Million level for FY 82.

TESTIMONY OF

ANTHONY J. MAGGIORE, JR.

ASSOCIATE DIRECTOR

COMMUNITY RELATIONS-SOCIAL DEVELOPMENT COMMISSION

IN

MILWAUKEE COUNTY

TO

U. S. HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON ENERGY

CONSERVATION AND POWER

COMMITTEE ON ENERGY

AND COMMERCE

"ENERGY BLOCK GRANTS -

IMPACT ON LOW INCOME HOUSEHOLDS"

MAY 28, 1981

Mr. Chairman, my name is Anthony J. Maggiore, Jr. I am the Associate Director for the Community Relations-Social Development Commission - a public intergovernmental social planning and Community Action Agency in Milwaukee County. Until recently, I was also a member of the Fuel Oil Marketing Advisory Committee of the U. S. Department of Energy and served as Chairperson of a committee which published reports on Low Income Energy Assistance Programs in 1979 and 1980. A copy of the latest report dated July, 1980 and titled "Low Income Energy Assistance Programs - A Profile of Need and Policy Options" is submitted to the committee for the record.

I want to thank you for the opportunity to testify before your committee on "Energy Block Grants - Impact on Low Income Households."

The major issues confronting all energy consumers today are partially the result of a government policy which promotes increased costs for energy in order to promote needed conservation and increased domestic production.

In my opinion, another policy is essential, a policy which relieves low income and elderly of the immediate and intolerable burdens imposed by this policy of increased costs. Without such a policy, the health and safety -- even the lives -- of low income persons, and especially the elderly, will be jeopardized.

During this testimony, I will attempt to outline the impact of rising energy costs on low income households, benefits from weatherization programs, comments on issues before this committee relative to Block Grants and my recommendations to the committee.

I. IMPACT OF RISING ENERGY PRICES ON LOW INCOME HOUSEHOLDS

A report published in July, 1980 by the Fuel Oil Marketing Advisory Committee (FOMAC) of the U. S. Department of Energy finds that, overall the poor:

1. will expend at least 35% of their income directly on energy and will spend at least 21% of their income on household energy;
2. will still continue to pay nearly 4 times more the percentage of their income on household energy than the average American household;
3. suffered a loss in average total income in real terms since 1972, making the acquisition of adequate energy for this group more difficult;
4. will lose over $6 billion in purchasing power in 1980 due to increases in energy costs;
5. have experienced, in certain regions of the country, a particularly harsh and disproportionate burden in paying for energy;
6. have less ability to offset increased energy costs through product substitution in the marketplace than for any other necessity utilized by poor households;
7. will use less than 50% of the total energy consumed by the average American household and 25% less household energy;
8. will continue, by necessity, to occupy low quality, energy inefficient housing stock that further penalizes them in their effort to cut energy costs; and,
9. lack financial resources to implement significant additional conservation imporvements.

II. BENEFITS FROM WEATHERIZATION

As energy prices continue to rise, the need for conservation becomes even more acute. A number of basic realities must be acknowledged if a long term solution to the energy needs of the poor is to be found:

1. The residential structures of low income people tend to be in poorer condition and less energy efficient than those of higher income families. As a recent national housing survey shows, basic energy conserving features are more likely to be absent in the housing of the poor and near poor (See Table I).
2. This lack of energy efficiency results in annual fuel bills substantially higher than they should be.
3. In terms of simple conservation measures such as thermostat set-backs, caulking, and weatherstripping, the poor have already conserved as much as possible. Yet, the they lack the necessary funds to invest in additional conservation such as weatherization and use of alternative energy sources which would result in greater energy savings. A recent DOE survey of conservation behavior shows that the poor are just as likely as average income households to take cost-free conservation measures (such as shutting off rooms; see Table II). However, as the cost of conservation measures increase (such as adding insulation) the poor are less likely than average income households to implement such measures.

TABLE I

EXISTING ENERGY-RELATED CHARACTERISTICS BY 1977 FAMILY INCOME 1/
(Winter 1978-79)

	1977 FAMILY INCOME					
	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25, Mo
TOTAL	100%	100%	100%	100%	100%	100
STORM WINDOWS						
All windows covered	30	34	39	48	43	48
Some windows covered	19	20	19	18	25	22
No windows covered	52	46	43	34	32	30
STORM DOORS						
All doors covered	30	38	36	41	39	37
Some doors covered	18	22	21	25	25	31
No doors covered	52	41	42	34	34	31
ATTIC INSULATION						
Have insulation	41	57	68	74	80	86
No insulation	37	29	19	15	9	9
Don't know	22	13	14	11	11	5
HAVE WALL INSULATION						
Yes	28	41	51	56	57	63
No	44	34	25	25	23	18
Don't know	27	24	24	19	20	19

1/ Source: U.S. Department of Energy, Residential Energy Consumption Survey: Conservation, Washington, D.C., Feb. 1980, p. 31.

TABLE II

CONSERVATION EFFORTS UNDERTAKEN IN 1978 BY 1977 FAMILY INCOME 1/
(Percentage of Households)

	1977 FAMILY INCOME					
	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,0 or Mor
Type of Conservation Measure:						
ROOMS CLOSED OFF						
Yes	28	33	31	31	32	30
No	59	55	56	61	57	60
No answer	13	12	13	8	11	10
ADDED INEXPENSIVE INSULATION						
Yes	18	23	26	32	31	27
No	82	77	74	68	69	73
ADDED INEXPENSIVE EQUIPMENT						
Yes	4	4	7	8	11	12
No	96	96	93	92	89	88
ADDED EXPENSIVE INSULATION						
Yes	3	3	6	6	8	9
No	97	97	94	94	92	91
ADDED EXPENSIVE EQUIPMENT						
Yes	3	3	5	5	7	8
No	97	97	95	95	93	92

1/ Source: U.S. Department of Energy, Residential Energy Consumption Survey: Conservation, Washington, D.C., Feb. 1980, pp. 31, 115.

The Federal Weatherization Program has been in existence since 1973. The program was developed and administered by the Community Services Administration in response to the impact of OPEC price increases on low income households. Through Congressional Action, the program was transferred to the U. S. Department of Energy (DOE) in 1977. Under the DOE program, grants are made to states which generally subcontract to Community Action Agencies to serve as local delivery mechanism. Most geographic areas of the county are presently being served by the program.

Though the DOE Weatherization Program initially had serious management and coordination problems, during the past year, the program had improved significantly. For example, during calendar year 1979 the DOE program weatherized 144,000 housing units throughout the county. During calendar year 1980, the DOE program had weatherized over 311,000 housing units - an increase of over 100%.

As program management and other related problems (EX. CETA labor) improved, the number of homes weatherized increased dramatically with an accompaning increase in expenditures. The program is currently spending program funds at the rate of 400 million per year, compared to the FY 81 appropriation of 182 million. As a result of the increase in expenditures, two states (Indiana and South Carolina) already have utilized all of their weatherization funds and are in the process of terminating operations. Unless there is supplemental appropriation to DOE during the next few months, operations in over 30 states will terminate by the end of Summer, 1981.

Recent studies of DOE weatherization programs in Indiana, Michigan, Minnesota, Pennsylvania, Utah, Washington, and Wisconsin indicated an annual household energy saving of 20-25%. Since current data indicates that low income households on the average, spend at least 21% of their income on household energy (in the Midwest and Northeast region of the U. S. it is over 30%), the projected 20-25% energy conservation saving is necessary for the household to have sufficient finances to purchase food, shelter, clothing, etc.

The National Weatherization Program serves eligible low income households with a priority placed on the Elderly and Handicapped. The recent success of the program has documented clearly the effectiveness of the program and the financial relief provided to the household's receiving services.

III. ISSUES BEFORE THE ENERGY CONSERVATION and POWER SUBCOMMITTEE on ENERGY BLOCK GRANTS

A. Do you favor continuation of the existing State and Local Energy Conservation Programs or consolidation into an Energy Block Grant?

Continuation of the existing State and Local energy conservation programs.

B. Advantages and disadvantages of a Block Grant compared to the existing categorical programs?

Advantages

1. Theoretically, less beaucracy, therefore less Administrative costs,
2. Programs designed to meet state versus national priorities,
3. More responsive to state and local versus Federal constituences,
4. Greater possibility of coordination with State and Local sponsored energy programs.

Disadvantages

1. In practice, probably little or no reduction in beaucracy and therefore, no significant savings in administrative costs.
2. National energy problems and priorities are not addressed on a National scale but on a state by state basis. Thus, in some states, such problems and priorities will be addressed, in others, they may not be dealt with at all or if so, minimally.

   Thus, Federal energy policies and decisions would not be directly related to actions designed to deal with the impact of such policies on a state and local level.

Example: Oil decontrol and the impact on low income and elderly households.

Possible future situations -

National gas deregulation and the impact on low income households.

Therefore, if energy Block Grants were to be passed by Congress and implemented, the future integrity of Federal energy policies would be jeopardized. Such policies are only effective to the extent that the Federal Government can assure implementation of such policies on the State and Local level.

3. Energy block grants would not assure the continuation of the current Federal low income weatherization program.

   Energy programs potentially grouped into a block grant program such as, State planning, schools and hospitals, energy extension and low income weatherization programs would compete for funds under the block grant approach.

   Since the other competing interests have considerably more political power than low income people, the poor, as always, would lose in such competition. Therefore, it is doubtful that in most states, the program would continue and in those states where it did, one can assume a disproportionately reduced level of funding and effort.

4. Energy block grants do not include income eligibility guidelines, performance and service standards, reporting and accountability mechanisms and limitation on administrative costs.

   Based on the Administration's block grant programs, it would be difficult to determine, on a national basis, if low income households were served, what kind of service they received, whether or not state and local administering agencies were weatherizing household units at an acceptable performance level, percentage of administrative costs to operational costs, etc.

National weatherization standards developed over the past 7 years by the Department of Energy, Community Services Administration, National Bureau of Standards, and other Federal Agencies may not be utilized by state and local governments under the energy block grant approach. Thus, as one might say "the wheel may be reinvented" at a substantial cost and hardship to low income households.

5. Energy block grants do not assure that rental and multi-family dwelling units be weatherized.

   Since over 50% of all low income households (at 100% of poverty) live in renter occupied units (Bureau of Census, current population Reports-June, 1978), such lack of specificity in the design of block grants may result in state and local programs whereby the majority of low income households may not receive or be eligible for services.

6. Linkages between the weatherization and fuel assistance programs would be difficult to achieve since they would function under two different block grants. Such linkages are important if a national goal is to reduce the need for fuel assistance through weatherization of low income dwellings.

7. The currently, effectively, operating weatherization program with trained personnel, management systems in place with existing space, vehicles, tools, and equipment would be, in all probability, dismanteled. It would be cost inefficient to dismantel the current program and at a later date, when conservation and categorical programs become popular again, establish a new program.

8. Finally, block grants as proposed by the Administration allows state government to transfer 10% of the total block grant to another block grant. It is projected that such transfer will occur from an energy block grant to other block grants such as Health and Social Services where

special interests are stronger, politically. For example, Governors' Bulletin, dated May 15, 1981, published by the National Governors' Association quotes Tennessee Governor Lamar Alexander as stating "he would probably recommend that some federal funds now slated for low income energy relief in his state be used to deal with infant mortality and other health problems, thereby rendering federal cuts in those areas negligible in his state or even increasing spending above current levels." Therefore, overall reductions in block grants plus the 10% transferability of state governments will substantially reduce fund availability in the energy block grant and especially, funds for the low income weatherization program.

C. What restrictions do you see in the existing programs that could be relieved under a block grant?

1. Limits on the amount of funds spent on weatherizing a home.
2. Where states have the interest, greater flexibility and experimentation in weatherizing rental and multifamily dwellings.

D. What kind of accountability would you provide under a block grant to insure that Congress' intent is carried out?

1. Income eligibility guidelines (OMB Guidelines) and services to those households most in need of service, i.e., Elderly and Handicapped.
2. Utilization of National performance and service standards developed by DOE, HUD, CSA, and the National Bureau of Standards. Such standards would include the necessity of weatherizing rental and multifamily dwelling units.
3. National uniform collection of data for purposes of evaluation, quality control, and monitoring.

E. What level of funding would you recommend for FY 1982 to continue existing state and local program at their present level of activity?

1. At a minimum, the low income weatherization program needs $400 Million for FY 1982 to continue at the present level of activity.

F. What level of funding would you recommend for a consolidated block grant in FY 1982? Do you see opportunities for reducing funding under a block grant program?

1. In light of the fact that energy is and should continue to be a national priority and the impact of national energy policies have placed a disproportionate burden on low income households-a $650 Million dollar funding level is recommended, with at least $400 Million earmarked for low income weatherization programs.

2. Fund reduction under a block grant.

It is projected that opportunities for reducing funding under a block grant program are extremely limited. Reorganization of various state offices to administer block grants may result in some fiscal saving but overall, since states would assume the administrative role formerly performed by the Federal Government, such savings will be neutralized by state establishment of new or expanded bureaucies to administer block grants as well as overall reduction of funding.

It should be noted that most of the growth in government employment in recent years has come from the State and Local level.

G. If the existing programs are turned into a block grant, under what formula would you recommend distributing funds to the state and/or local government?

1. Population of state and/or local government;
2. Number of low income households;
3. Age of Housing stock;
4. Climate - degree days factor.

H. Should there be a matching requirement for State and Local programs?

No. In light of projected overall Federal funding reductions, such a requirement would appear to be inadvisable. The existence of some block grant programs may be jeopardized in some states if fund matching requirements are mandated. Locally, a recent study by the joint Economic Committee detailed current fiscal Crisis of Cities of more than 10,000 population.

I. Do you believe that the Federal government should be responsible for funding State or Local Energy Offices?

Yes. As stated earlier, for purposes of implementing Federal Energy goals and policies. In addition, state and local governments have increasingly less fiscal ability to fund such offices in the face of competing special interests and lack of state and local energy prioritization.

J. What role do you see for local governments in carrying out Federal Conservation Programs?

Local governments in cooperation with other segments of the community, i.e., non-profit organizations, business and industry, unions, etc., have a major role to perform in implementing federal energy conservation programs. Such a role can best be performed by local government within the context of stable and consistent Federal energy conservation goals and policies.

Local governments are in a position to implement national energy policies through bringing together private and public resources.

Generally, low income emphases programs do not benefit proportionately from such efforts. By and large, efforts to assist low income households and the Elderly have come from the Federal government.

It is anticipated that if state or local energy block grants were implemented, the poor would lose out to competing, more powerful special interests.

IV. RECOMMENDATIONS

1. Continue the current grant program as a Federal categorical program with national standards and requirements, accountability, and targeting of resources to the elderly, handicapped, and most needy households.
2. Promote and legislate a comprehensive system of services to assist low income households in coping with the increased cost of energy, including but not limited to a national weatherization program, fuel assistance program, energy education conservation program, utilization of appropriate and alternative technologies, etc.
3. Increase the current appropriation in order to continue the program through the end of fiscal year 1981.
4. Increase the FY 82 appropriation to $400 Million.
5. Maintain consistency in government sponsorship of the weatherization program. Time and tax dollars are wasted when programs are moved from one government sponsoring agency to another. New regulations, new systems of administration and new staff all tend to disrupt program operations for a few years after the move. This fact was clearly demonstrated when the program moved from the Community Services Administration to DOE.

State and local governments do not have a notable history in initiating programs that address basic health, income, and energy needs of low income people. If Congress eliminates energy categorical programs, it is possible that many, if not most, current low income weatherization programs may cease to exist. Low income people cannot possibly compete with the power and influence of special interests (i.e., schools and hospitals, universities, etc.) at the local or state level.

In addition, the poor cannot afford "conservation through price increases", as they simple do not have the resources to make conservation improvements and at the same time, cannot afford to pay their fuel/utility bills. The energy problems of the poor will only worsen if a national categorical weatherization/conservation effort for low income households does not exist.

An energy block grant program does not assure the continuation of such a program. Low income people need the strong role of the Federal government to protect their interests.

A noted Spanish Philosopher - Santanya - once stated

"Those who forget the past -
Condemn the Future"

Energy conservation, human rights, and concern for low income people has been our past -- we should not condemn our future in terms of our values, programs, and concerns for the poor.

Senator WARNER. In that vein, I am very much interested. I have learned a lot here today. I have extended the hearing by a half hour or more. On the basis of the testimony received today and the issues raised I am going to announce that the chairman and myself and ranking minority members have agreed to an additional day of hearings on October 16 so we are going to do just that.

I would hope that you would submit to our counsel, all of you, whatever you feel is appropriate. We have to terminate now because our time has run out under the Senate order. Have you pretty well completed?

Mr. HILL. Yes. That is the conclusion of my remarks.

Senator WARNER. Thank you very much. I have learned something today.

The hearing is now recessed until further notice.

[Whereupon, at 12:57 p.m., the hearing was recessed, to reconvene, Friday, October 16, 1981.]

STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

FRIDAY, OCTOBER 16, 1981

U. S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 10.03 a.m., in room 3110, Dirksen Office Building, Hon. Pete V. Domenici, presiding.

Present: Senators Domenici, Ford, and Bradley.

Also present: Richard D. Grundy, professional staff member; Paul Gilman, professional staff member; and James T. Bruce, counsel for the minority.

OPENING STATEMENT OF HON. WENDELL H. FORD, A U.S. SENATOR FROM THE STATE OF KENTUCKY

Senator FORD. This second day of hearings on S. 1544, the State and Local Energy Block Grant Act, was requested by a number of members of this committee, including most of the minority members. It was our feeling that because this legislation repeals all of the categorical grant energy programs created over the last 7 years, plus the Residential Conservation Service, it deserves more than a single day of hearings. We appreciate the chairman's readiness to accommodate our request for this hearing.

At the outset I must agree that some of these energy grant programs deserve reexamination and could be streamlined so as to reduce the paperwork required for application by the States and local government. I believe that this committee should at the proper time hold oversight hearings with the objective of amending the basic statutes so as to improve these programs. I would hope that the witnesses today will provide us with some ideas in that regard. If you desire to relate those ideas to S. 1166, that is perfectly all right, too.

At the first hearing on S. 1544 we learned the genesis of this legislation. When Chairman McClure requested the administration's views of S. 1166, sponsored by Senator Weicker and Senator Hatfield, both David Stockman and Tenney Johnson, DOE General Counsel, wrote separate letters to Chairman McClure stating the administration's opposition to S. 1166. However, both letters issued the same invitation:

"Under these circumstances, in a spirit of compromise, the administration would not oppose legislation authorizing a State and local energy block grant for energy supply, conservation, and low-income weatherization activities which would repeal and replace all the existing categorical conservation grant programs, including the residential conservation service, and for which funding would be authorized at a level not in excess of $200 million per year."

And so S. 1544 was born. I would note here that the current authorization level for the existing programs is over $350 million, so S. 1544 would represent a cut in authorization of over $150 million.

However, while the administration in essence invited the introduction of this legislation, which would repeal all the existing programs and replace them with a block grant, they were unwilling in the last hearing to commit to requesting any funds for S. 1544, if enacted. Back in Kentucky we have heard that kind of invitation put another way—"Will you walk into my parlor?" said the spider to the fly.

As we hear from our witnesses today, I hope that they will speak to the provisions that S. 1544 makes for accountability in the use of the State block grants. This committee must examine carefully any legislation providing grants to 50 States and perhaps hundreds of local jurisdictions but which provides less accountability for the use of those funds than that which we demand of DOE, a single agency over which this committee has complete oversight jurisdiction. I can't recall when this committee was ever willing to authorize appropriations to DOE with language that simply said—"Spend it on energy, either energy supply or energy conservation, or both."

The first witness this morning will be James Duffus III, Senior Group Director, Energy and Minerals Division, General Accounting Office. He will have a couple of people with him.

Dr. John Gibbons also will be on this panel.

If you gentlemen will come forward we will proceed.

STATEMENT OF HON. JAMES DUFFUS III, SENIOR GROUP DIRECTOR, ENERGY AND MINERALS DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY DAVID CAHALEN, GROUP DIRECTOR, ENERGY AND MINERALS DIVISION; AND LARRY H. ENDY, GROUP DIRECTOR, GENERAL GOVERNMENT DIVISION

Mr. DUFFUS. Thank you, Mr. Chairman.

My name is James Duffus. I am the Senior Director for the Energy and Minerals Division in the General Accounting Office. I would like to introduce the gentlemen accompanying me. On my right is Dave Cahalen, a Group Director in the Energy and Minerals Division, who has done considerable work on State conservation programs. On my left is Larry Endy, a Group Director, in our General Government Division, who has done work in the intergovernmental relations area.

Mr. Chairman and members of the committee, we welcome the opportunity to be here today to discuss energy block grants. We recently issued a report on energy conservation block grant options. My statement is based on that report and discusses our overall position on block grants. It also discusses various features that could be considered in establishing an energy block grant program—measures of accountability for program effectiveness, formula for fund distribution, and matching or maintenance of effort requirements.

In examining a variety of grant programs, we have supported the concept of consolidating separate categorical programs having related objectives and serving similar target populations, placing management responsibility for similar programs in the same agency, and giving the States greater flexibility to match resources with needed priorities.

Our longstanding position has been that the consolidation of fragmented and restrictive categorical grants into broader purpose programs is fundamental to improving the administration of Federal assistance programs at all levels of government. The categorical grant system has created a variety of administrative problems. Categorical grants are often too restrictive to meet actual service needs at the State and local levels and the burden of monitoring a coordinated effort to deliver federally assisted services falls on the grantee.

The proliferation of categorical programs also has considerable impact on State and local priorities. By providing assistance in narrowly defined areas on national priorities, the Federal Government induces State and local governments to fund programs that they otherwise may not have funded.

Federal grants available for a broader range of purposes would increase State and local discretion and move toward supporting rather than changing State and local priorities. Block grants seek to achieve this goal by providing assistance for a broad range of purposes in a functional area, thereby maximizing flexibility and easing administrative burdens at State and local levels.

There are various features that could be considered in designing block grant legislation, such as S. 1544 currently under consideration by this committee. These features include provisions for accountability, formulas for fund distribution, and matching or maintenance of effort.

The choice of design features for block grants is properly a political function that should be driven by the ultimate objectives the Congress is seeking to achieve. Block grants intended to continue Federal stewardship of national objectives in a more flexible or decentralized manner should have significantly different design features than block grants intended principally to transfer Federal responsibilities to State and local governments.

In designing a block grant program, the Congress must consider the tradeoffs between State and local discretion and Federal control. At one end of the spectrum, block grants may become indistinguishable from general revenue sharing, if, for example, a maintenance of effort provision is not included. On the other hand, detailed Federal eligibility rules, standards, or funding requirements could transform the block grant into a categorical grant, thus lessening any benefits that could be realized from greater State and local discretion. A balance should be sought between the extent of flexibility provided to State and local governments and the degree of accountability to the Federal Government required to assure that the program's national objectives will be met.

A number of different provisions can be incorporated into block grants to facilitate the achievement of national objectives. The provisions considered should be carefully framed to encourage States and localities to meet national objectives in the broadest possible way and provide flexibility. The provisions could encourage achievement of goals without specifying the means to be used.

The nature and extent of a Federal role in accountability will be a function of two factors: First, whether the purposes of the programs make a Federal role appropriate or desirable; and second, whether the design features of the program make a Federal role possible. If a Federal accountability role is desired, the program should be designed in such a way that it is possible to assess what program funds are spent for and what they are accomplishing. Several important design features and mechanisms would promote this should the Congress desire a Federal role in assessing program efficiency and effectiveness. However, it is important that Federal accountability alternatives be considered in the context of the overall objectives the Congress is trying to achieve.

Among the provisions that could be considered to provide accountability are planning provisions, performance goals, oversight requirements, and specification of required or ineligible activities.

Planning provisions can enable States to better define their own goals and objectives within the parameters of Federal objectives defined for the program. S. 1544 contains no provision requiring State plans. Among the features for a State energy plan that could be considered in proposed energy block grant programs are the following:

A description of State energy supply and demand and of its energy goals and policies.

A forecast of energy consumption patterns, including the likely sources and the need for major energy supply facilities.

A management plan for, and description of the planned uses of the block grant funds and any other Federal or non-Federal funds.

Performance goals requiring States to achieve broad goals and objectives can be included, while allowing grantees the flexibility to select the specific means to be used and the funding needed for meeting the objectives. S. 1544 contains no requirements for such goals and objectives.

Oversight of the extent to which block grant funds are being spent to achieve Federal objectives is appropriate to ascertain what the funds are accomplishing. Certain reporting, audit, and evaluation provisions could facilitate the ability of the Federal Government to judge the extent to which national objectives are being achieved and, if considered desirable, to assess the efficiency and effectiveness of block grant funded program efforts of the States. S. 1544 requires each grantee to keep whatever records the Secretary of Energy prescribes in order to assure an effective financial audit and performance evaluation.

The responsibility for audit and evaluation could be allocated among the levels of government in a number of ways. State governments could bear primary responsibility for performing both financial and compliance audits as well as evaluations of program efficiency and effectiveness. Under this scheme, the role of Federal agencies would be to provide broad guidance on Federal criteria and general oversight of the adequacy of State and local audits and evaluations. Nationwide evaluations of program effectiveness among all States may also be desirable, necessitating a more direct evaluation role for Federal agencies, perhaps culminating in an annual report.

The establishment of performance goals and planning provisions previously discussed would facilitate the oversight process by establishing a basis for periodic assessment of individual State and overall program progress and effectiveness.

The legislation can provide that certain type activities must be included in the State's program, are not eligible for funding, or must be funded at a specified percentage level of the State's grant. Although this would encourage a greater concentration of block grant resources on areas of national concern, it would take away from the grantee the flexibility of deciding priorities. S. 1544 contains no such requirements.

The purpose of an allocation formula is to distribute the program funds among State and local governments. Such formulas often give consideration to factors related to the program's overall objectives, and seek to allocate funds to the areas where the problems are concentrated.

S. 1544 distributes funds to the States with 75 percent allocated on the basis of population and 25 percent allocated equally among the States.

Other factors that could be considered in the formula are the climatic conditions in each State, which may include consideration of heating and cooling degree-days and low-income population. Inclusion of these factors would recognize varying State climatic conditions affecting energy use and varying low-income populations affecting the need for weatherization.

Matching and maintenance of effort provisions comprise the principal means through which Federal programs influence State and local budgets. Matching provisions require State and local governments to bear a minimum share of program costs as a condition for receiving Federal assistance. Maintenance of effort provisions are designed to prevent State and local grantees from reducing their spending in federally funded program areas. S. 1544 requires matching funds from non-Federal sources equal to 30 percent for fiscal year 1982 and 50 percent for fiscal years 1983 and 1984.

The total financial burden on State and local governments has become an important issue due to the rapid growth of Federal matching grant programs over the past 15 years, as well as the recent wave of fiscal constraints and expenditure reductions faced by all levels of government. For this reason, the appropriateness and effectiveness of matching requirements have become important issues for the entire public sector.

In a December 1980 report on matching and maintenance of effort requirements, we noted that localities facing budget reductions most often choose to continue their matching contributions to retain Federal grant funds while disproportionately cutting nonfederally funded local programs of higher priority. As a result, a local priority shift toward federally funded programs occurs. We recommended that the Congress use matching requirements more sparingly and only where a specific Federal interest can be articulated. This would help restore State and local discretion in allocating their own funds.

Well-designed maintenance of effort requirements on the other hand, can serve a Federal purpose by insuring that Federal grant funds are used to support additional program objectives and not used to replace State or local support for these activities. Such requirements, however, could have significant adverse programmatic and fiscal effects by reducing the flexibility available to State and local governments to manage their own resources more effectively.

In our December 1980 report we concluded that maintenance of effort requirements must be made more flexible to avoid penalizing bona fide spending reductions as well as program innovation. At the same time, these requirements also need to be standardized to improve Federal implementation and assist State and local governments in their own compliance efforts.

Mr. Chairman, this concludes my statement. I will be happy to respond to your questions.

[Attachments to Mr. Duffus' statement follow:]

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ENERGY AND MINERALS
DIVISION

July 8, 1981

B-203941

The Honorable Richard L. Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

Subject: Options for Establishing an Energy Conservation Consolidated Grant Program (EMD-81-115)

In response to your June 15, 1981, request, we are furnishing you in the enclosure to this letter, our consideration of options for establishing an energy conservation consolidated grant program. As you requested, these options were considered in the context of provisions for (1) measures of accountability for program effectiveness while still giving flexibility to State and local governments, (2) formulas for fund distribution, and (3) either matching or maintenance of effort requirements. We have also included our views on legislative changes to provide more flexibility to certain existing State conservation grant programs should they be continued as categorical grant programs.

We trust that this information will be useful to the Subcommittee in its deliberations.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 14 days from its issue date. At that time we will send copies to the chairmen of energy-related congressional committees and make copies available to others upon request.

Sincerely yours,

for J. Dexter Peach
Director

(003498)

OPTIONS FOR ESTABLISHING AN ENERGY CONSERVATION CONSOLIDATED GRANT PROGRAM

On June 15, 1981, the Chairman, Subcommittee on Energy Conservation and Power, House Committee on Energy and Commerce, requested the General Accounting Office to consider options for establishing an energy conservation consolidated grant program. The Chairman further requested that these options be considered in the context of provisions for (1) measures of accountability for program effectiveness while still giving flexibility to State and local governments, (2) formulas for fund distribution, and (3) either matching or maintenance of effort requirements. Finally the Chairman requested our views on what could be done, either through legislative or administrative remedies, to improve existing programs and/or provide more flexibility should they be continued as categorical programs.

In addressing the block grant portion of this request, we considered the following three block grant proposals which are under study by the Subcommittee:

--A discussion draft by Representatives Toby Moffett and Edward Markey, entitled "State and Local Energy Block Grant Act of 1981," which is the Subcommittee's primary interest (hereinafter referred to as the Moffett/Markey proposal).

--A discussion draft presented jointly by the National Governors' Association, the National League of Cities, the National Association of Counties, and the United States Conference of Mayors, entitled the "State and Local Energy Block Grant Act of 1981" (hereinafter referred to as the Governors' proposal).

--"The National Home Weatherization Act of 1981," Senate bill 1166 (hereinafter referred to as S. 1166).

The Governors' proposal and S. 1166 would combine all currently authorized State energy conservation programs (low-income weatherization, Energy Extension Service, State Energy Conservation, Schools and Hospitals, Local Government Buildings and Public Care Institutions, and Emergency Energy Conservation) into a block grant program. The Moffett/Markey proposal provides for a similar block grant program but excludes low-income weatherization and Energy Extension Service.

BACKGROUND

The choice of design features for block grants is properly a political function that should be driven by the ultimate objectives the Congress is seeking to achieve. Block grants intended to continue Federal stewardship of national objectives in a more flexible or decentralized manner should have significantly different design features than block grants intended principally to devolve Federal responsibilities back to State and local governments.

In designing a block grant program, the Congress must consider the trade-offs between State and local discretion and Federal control. At one end of the spectrum, block grants may become indistinguishable from general revenue sharing, if, for example, a maintenance of effort provision is not included. On the other hand, detailed Federal eligibility rules, standards, or funding requirements could transform the block grant into a categorical grant, thus lessening any benefits that could be realized from greater State and local discretion. A balance should be sought between the extent of flexibility provided to State and local governments and the degree of accountability to the Federal Government required to assure that the program's national objectives will be met.

A number of different provisions can be incorporated into block grants to facilitate the achievement of national objectives. The provisions considered should be nonintrusively framed to encourage States and localities to meet national objectives in the broadest possible way and provide flexibility. The provisions could encourage achievement of goals without specifying the means to be used.

Following is a discussion of the various provisions that could be considered in the three areas of Subcommittee interest

--providing measures of accountability for program effectiveness while still giving flexibility to State and local governments,

--formulas for fund distribution, and

--matching or maintenance of effort requirements.

ACCOUNTABILITY REQUIREMENTS

The nature and extent of a Federal role in accountability will be a function of two factors: (1) whether the purposes of the programs make a Federal role appropriate or desirable and

(2) whether the design features of the program make a Federal role possible. If a Federal accountability role is desired, the program should be designed in such a way that it is possible to assess what program funds are spent for and what they are accomplishing. Several important design features and mechanisms would promote this should the Congress desire a Federal role in assessing program efficiency and effectiveness. However, it is important that Federal accountability alternatives be considered in the context of the overall objectives the Congress is trying to achieve.

Among the provisions that could be considered to provide accountability are:

--Planning provisions requiring grantees to prioritize their proposed use of funds.

--Performance goals requiring grantees to achieve broad goals and objectives.

--Oversight requirements for periodic evaluation of program efficiency and effectiveness.

--Specification of required or ineligible activities and activity spending requirements.

Planning provisions

Planning provisions can enable States to better define their own goals and objectives within the parameters of Federal objectives defined for the program. Grantees could be required to specify how they plan to meet national objectives. The required plans could be comprehensive, addressing the goals and objectives for non-federally as well as federally funded activities in the area. Further, the plans could be required to anticipate results-oriented goals and objectives to facilitate evaluations of program results. (A further elaboration on goals is contained in the next section.)

The three proposals under consideration by the Subcommittee contain various planning provisions. The provisions of the Moffett/Markey proposal--requiring a description of the State's energy supply and demand and its energy conservation and renewable resource goals and policies, and a management plan for and description of the planned uses of funds to implement the State plan--are relatively general. The provisions of the Governors' proposal and S. 1166 contain similar requirements, including an added requirement for describing the State's method for monitoring and assessing achievement of its goals and objectives.

Among the features for a State energy plan that could be considered in the proposed energy block grant program are the following, some of which are contained in one or more of the three proposals:

--A description of State energy supply and demand and of its energy goals and policies.

--A forecast of future energy consumption patterns including a description of the likely energy sources and a projection of the need for major energy supply facilities.

--A management plan for, and description of the planned uses of the block grant funds and any other Federal or non-Federal funds. The management plan could include a description of (1) the programs the State will carry out to achieve its energy goals and objectives, (2) the relationship between such programs, its energy forecast and the State's goals and objectives for energy conservation, and (3) methods by which the State will periodically monitor and assess its success in implementing the plan.

--Federal involvement in the State planning effort can be increased, if the Congress wishes to do so, by providing that the State plan be reviewed and approved. Depending on the degree of Federal input desired, this review could be limited to disapproving plans not consistent with legislative and administrative requirements.

Performance goals

Performance goals requiring States and localities to achieve broad goals and objectives can be included, while allowing grantees the flexibility to select the specific means to be used and the funding needed for meeting the objectives.

Each of the three block grant proposals contain statements on goals and objectives. The stated purposes of the Moffett/Markey proposal, which is the Subcommittee's primary interest, are to (1) help to reduce the Nation's dependence on foreign oil through State and local programs to promote efficient use of energy resources and further development of renewable energy sources, (2) provide assistance to State and local governments for the development and effective implementation of national energy policy objectives, and (3) provide State and local governments with greater flexibility in energy program design and implementatior

These purposes establish some very broad goals for the States and localities to meet. In principle, at least, it would be possible to measure the extent to which the first goal is being achieved. The latter two goals, on the other hand, could only be subject to a qualitative assessment. The first goal could be further refined by providing for goals or targets. Such goals could be made mandatory through specific numerical targets established by legislation or agency regulations. Alternatively, the legislation could require the States to establish targets in their plans. Federal agency approval of State plans could ensure that the State established reasonable targets. These goals or targets could be stated as a percentage reduction of energy use or in terms of a minimum cost/benefit ratio for individual projects or measures. In any case, they should be performance or goal oriented in nature without specifying how States are to meet the goals.

It should be pointed out, however, that our work on the State Energy Conservation Program has shown problems in quantifying and evaluating energy savings goals. The State Energy Conservation Program provided for achievement of an energy savings goal of a reduction of 5 percent or more in the projected energy consumption of each State by 1980. However, we reported that the 1980 savings projections for many of the State programs we reviewed were based on optimistic "best case" projections and contained critical assumptions on savings attainable which were inadequately supported and insufficiently evaluated by the Department of Energy (DOE). 1/

Oversight requirements

The Moffett/Markey and Governors' proposals require each grant recipient to keep records and make reports to DOE, including such information as DOE deems necessary to prepare its anual report to the Congress and facilitate an effective audit and performance evaluation. There is no language in S. 1166 concerning oversight requirements.

Oversight of the extent to which block grant funds are being spent to achieve Federal objectives is appropriate to ascertain what the funds are accomplishing. Certain reporting, audit and evaluation provisions could facilitate the ability of the Federal Government to judge the extent to which national objectives are being achieved and, if considered desirable, to assess the efficiency and effectiveness of block grant funded program efforts of the States.

1/ "Delays and Uncertain Energy Savings in Program to Promote State Energy Conservation," EMD-80-97, Sept. 2, 1980.

Specific and nationally consistent reporting requirements could be provided. State and local reporting on program expenditures and accomplishments such as servicing of target beneficiary groups, sub-State distribution of funds, and administrative costs incurred, would assist Federal agency monitors and evaluators alike in providing oversight.

Full audit and evaluation requirements could be included to establish routinized mechanisms to assess program performance. The responsibility for audit and evaluation could be allocated among the levels of government in a number of ways. State and local governments could bear primary responsibility for performing both financial and compliance audits as well as evaluations of program efficiency and effectiveness. Under this scheme, the role of Federal agencies would be to provide broad guidance on Federal criteria and general oversight of the adequacy of State and local audits and evaluations. Nationwide evaluations of program effectiveness among all States may also be desirable, necessitating a more direct evaluation role for Federal agencies, perhaps culminating in an annual report.

The establishment of performance goals and planning provisions previously discussed would facilitate the oversight process by establishing a basis for periodic assessment of individual State and overall program progress and effectiveness.

Activity requirements

The legislation can provide that certain type activities (1) must be included in the State's program, (2) are not eligible for funding, or (3) must be funded at a specified percentage level of the State's grant. Although this could encourage a greater concentration of block grant resources on areas of national concern, it would take away from the grantee the flexibility of deciding priorities.

The legislation can specify that activities undertaken shall include but not be limited to certain required activities. While the grantee must include the specified activities, it can set the relative priorities and funding levels among them, taking into account its special needs or conditions. However, it takes away the grantee's flexibility by requiring the funding of an activity that the grantee may not consider germane to its special needs.

Another form of activity requirement is specifying what types of activities may not be undertaken. This would deal with what types of program activities are prohibited, such as subsidizing mass transit fares, or research and development activities. An exception could be provided which would allow States to justify the inclusion of any activity if it met a "critical" need, such as large target audience or if it were particularly cost effective.

Another form of activity requirement is specifying that an activity must be funded at a certain percentage level of the State's grant. An example of this is the requirement in S. 1166 that not less than 65 percent of a grant must be used for low-income weatherization. This is a restrictive type of accountability in that it makes the policy decision for the State by providing that no less than a certain percentage of available funds will be spent on a particular function. Although flexibility as to how to carry out the specified purpose can be provided, the basic policy decision of relative priority is contained in the enacting legislation. Arriving at an acceptable nationwide percentage floor for an activity may be very difficult as the needs and requirements of the States may vary considerably for a stated activity. In fact, it could be argued that national specification of State resource allocations within block grants undermines a principal objective of the block grant concept, i.e., enabling States to better match Federal resources with State and local needs.

ALLOCATION FORMULA

The purpose of an allocation formula is to distribute the program funds among State and local governments. Such formulas often give consideration to factors related to the program's overall objectives, and seek to allocate funds to the areas where the problems are concentrated.

All three block grant proposals being considered by the Subcommittee provide allocation formulas for distributing State grant funds. Two of the proposals authorize funding for local government grants and provide formulas for its distribution.

State grant funds

S. 1166 provides for allocation of funds to the States as follows

--65 percent to be allocated on the basis of a formula considering the number of low-income households and the amount and availability of fuel or energy used by low-income households;

--25 percent to be allocated on the basis of a formula considering population and climate; and

--10 percent to be allocated equally among the States.

The other two proposals provide for allocating funds among the States as follows

--75 percent on the basis of population, and

--25 percent equally among the States.

Another factor that could be considered in the program formula for the latter two proposals is the climatic conditions in each State, which may include consideration of heating and cooling degree-days. Inclusion of this factor would recognize varying State climatic conditions affecting energy use.

The existing legislation for the State Energy Conservation Program provides one other allocation factor--energy savings. The Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) and DOE regulations issued pursuant to the act provide that 35 percent of the funds available under the base program would be divided on the basis of estimated energy savings in calendar year 1980 resulting from implementation of State energy conservation plans. However, as previously pointed out in our September 1980 report, we stated that the 1980 savings projections for many of the State projects we reviewed were based on optimistic "best case" projections and contained critical assumptions on savings attainable which were inadequately supported and insufficiently evaluated by DOE. Therefore, the inclusion of this factor could result in rewarding States that overestimate savings while penalizing States that make a reasonable estimate.

Local government grant funds

The Moffett/Markey and the Governors' proposals authorize a program of grants to local governments. The Moffett/Markey proposal provides a specific fund authorization for local grants; the Governors' proposal provides that 20 percent of the total funds authorized will be for local grants. The stated purpose of the grants to local governments is to encourage them to adopt and implement community plans and programs to achieve significant levels of energy conservation and encourage the use of renewable resources.

The two proposals contain similar allocation formulas as follows:

--Funds are allocated among the States based on formulas which give considerable weight to the extent of poverty and housing overcrowding or age.

--Funds allocated to a State are allocated to three categories of local governments (metropolitan cities and urban counties in metropolitan areas, other units of local government within metropolitan areas, and nonmetropolitan areas) on the basis of the population of each category within the State.

- --Funds allocated to the first category--metropolitan cities and urban counties in metropolitan areas--are distributed to each of those cities and counties on the basis of formulas which give considerable weight to the extent of poverty and housing overcrowding or age.

- --Funds for the other two categories are to be allocated to those units of government based on a process acceptable to the Governor and statewide organizations representing those units of government.

Since the purpose of providing funds to local governments in the Moffett/Markey proposal is the general encouragement of energy conservation and use of renewables, and low-income weatherization is to remain as a separate program, most of the programs undertaken by the local governments may not be directly related to low-income housing. Therefore, it may not be meaningful to allocate funds based on formulas which are heavily weighted toward poverty and housing overcrowding or age. Since the purposes of the local grant program are similar to those of the State grant program, it may be more meaningful to include the factors discussed above under the State grant program, such as climatic conditions.

MATCHING AND MAINTENANCE OF EFFORT REQUIREMENTS

Matching and maintenance of effort provisions comprise the principal means through which Federal programs influence State and local budgets. Matching provisions require State and local governments to bear a minimum share of program costs as a condition for receiving Federal assistance. Maintenance of effort provisions are designed to prevent State and local grantees from reducing their spending in federally funded program areas.

The aggregate burden on State and local governments has become an important issue due to the rapid growth of Federal matching grant programs over the past 15 years as well as the recent wave of fiscal constraints and expenditure reductions faced by all levels of government. For this reason, their appropriateness and effectiveness have become important issues for the entire public sector.

In a December 1980 report on matching and maintenance of effort requirements, 1/ we stated that matching requirements need to be used more sparingly and only where a clearly articulated Federal interest does not conflict with the broader purposes

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1/"Proposed Changes in Federal Matching and Maintenance of Effort Requirements for State and Local Governments," GGD-81-7, Dec. 23, 1980.

of Federal grant programs themselves. Maintenance of effort requirements, while usually serving a clear Federal interest, need to be changed to more effectively prevent the substitution of Federal for State and local funds as well as to provide for more State and local budget flexibility by not penalizing bona fide State and local budget reductions.

Matching requirements

The three block grant proposals being considered by the Subcommittee contain matching requirements. For State grants, all require that the State provide matching funds ranging from 15 to 25 percent. S. 1166 starts out with a matching requirement of 15 percent for fiscal year 1982, which increases to 25 percent in fiscal year 1983 and 35 percent in fiscal year 1984. Applicants for grants to local governments are required to provide a 20 percent in-kind match.

In our December 1980 report, we recommended that in general matching requirements should be used more sparingly in Federal grant programs. First, matching requirements can work to screen out those governments most in need of a program but least able to finance a match. As a result, Federal grant funds may not reach the very jurisdictions they were most intended to help. In addition, most Federal grant programs lack the flexibility to ease the requirement for States and localities with low fiscal capability. Thus, we suggest that matching may not be appropriate when the primary purpose of the program is to allocate Federal funds to State and local governments based on need.

Matching requirements may also distort State and local spending priorities by enticing these governments into providing matching for low priority local programs at the expense of higher priority programs not funded by Federal grants. The matching requirements of all Federal grant programs working together can significantly burden the State and local budget process by distorting spending priorities. The effects become particularly painful during times of State and local budget cuts. We found that 17 of 23 fiscally pressed local governments retained their match for Federal programs while disproportionately cutting non-federally funded local programs of higher priority.

We also concluded that matching requirements are not generally needed to control or distribute Federal outlays. With the exception of several open-ended entitlement programs like Medicaid and Aid for Dependent Children, Federal outlays for each program are controlled by appropriations, not the matching requirements. Further, within most programs, Federal dollars are provided to grantees based on a distribution formula. Matching requirements serve no function in the distribution of these funds.

What Federal interest, then, is served by matching requirements? It has been argued that the fiscal stake called forth by matching requirements can induce grantees to become more fiscally responsible and devote greater management attention to federally funded programs. We found, however, that low non-Federal matching requirements (those below 25 percent) generally do not encourage management oversight over program operations or deliberation over program priorities by State or local central management officials. In fact, low match rates can usually be satisfied by in-kind contributions from existing State or local resources. Accordingly, they do not appear to foster any more central management attention than occurs for 100 percent federally funded programs. We did find that match can promote greater management oversight only if the requirement is strong enough to require a significant expenditure increase or fiscal stake by the grantee. Thus, if greater State and local management attention and control is desired by using the matching provision, a relatively high non-Federal matching rate and cash-only contribution provision would be necessary.

Clearly, such a strong matching requirement could frustrate the achievement of national program goals by deterring the participation of those State and local governments lacking either the interest or the fiscal resources required to meet the match. This problem could be dealt with by either providing for an agency waiver of the match for fiscally poor grantees or a variable matching rate that is lower for grantees with less fiscal capacity.

Other grant design features can be used to encourage State and local management attention that do not pose the intergovernmental conflicts created by matching requirements. Our research indicates that the provision of more discretion for grantees over resource allocation promised by block grants may more effectively stimulate State and local central management attention and oversight over Federal programs than matching. This fact was first reported by local officials who noticed that greater attention was given to the no-match Community Development Block Grant program by central local officials than was given to the previous Department of Housing and Urban Development categorical grants that required a local match.

Maintenance of effort

Each of the three block grant proposals would require States to provide non-Federal resources at a specified percentage of the amount allocated to them for the fiscal year involved. These are, in effect, maintenance of effort rather than matching provisions because States must spend a specified amount of their own resources in order to receive the Federal allocation, but they receive no additional Federal funding if they spend more than this amount.

Well-designed maintenance of effort requirements can serve a Federal purpose by ensuring that Federal grant funds are used to support additional program activities and not used to replace State or local support for these activities. Most existing maintenance of effort requirements, however, are not strong enough for this purpose.

Fixed level of effort provisions, which require State and local governments to maintain past spending, are often not updated to keep pace with inflation. Nonsupplant requirements, used to prevent State and local governments from using Federal funds for activities that would otherwise have been non-federally funded, are not enforced by many Federal agencies due to the substantial problems in ascertaining State and local spending intentions.

Stronger requirements, however, could have significant adverse programmatic and fiscal effects by reducing the flexibility available to State and local governments to manage their own resources more effectively. Strong maintenance of effort requirements may discourage some State and local governments from participating in the grant program itself, thereby imperiling the cooperation of State and local governments which many Federal programs have come to need.

In our December 1980 report, we concluded that maintenance of effort requirements must be made more flexible to avoid penalizing bona fide spending reductions as well as program innovation. At the same time, these requirements also need to be standardized to improve Federal implementation and assist State and local governments in their own compliance efforts. We recommended that the Congress strengthen maintenance of effort requirements to prevent fiscal substitution and provide more flexibility by not penalizing bona fide spending reductions.

REMEDIES TO IMPROVE EXISTING PROGRAMS AND PROVIDE MORE FLEXIBILITY

The existing legislation for programs concerning low-income weatherization and State energy conservation contains a number of requirements which could be eliminated or updated to provide States with greater flexibility. We have no suggestions for changes to provide greater flexibility in the programs related to Energy Extension Service, Schools and Hospitals and Emergency Energy Conservation.

Low-income weatherization

The existing low-income weatherization program legislation contains some definitions and limitations that restrict the States in type of services offered and program costs. The

Congress could consider removing some or all of these restrictions and either provide that they be established by DOE in regulations, or by the States in their plans.

Among the principal restrictions are

--a definition of "weatherization materials" which limits eligible weatherization work to the items listed in the definition,

--a limit of $150 per unit for incidental repairs,

--a limit of 10 percent of grant funds to be used for administrative purposes with not more than one-half of this amount going to the State.

Removal of these limitations would provide greater flexibility to the States. However, it could also cause considerable variation among the States in the type and extent of weatherization services provided, resulting in unequal treatment of low-income persons among States.

State Energy Conservation Program

The State Energy Conservation Program legislation requires State plans to include eight measures--lighting and thermal building standards, promotion of carpools, vanpools and public transportation, mandatory energy efficient State procurement standards, a traffic law or regulation permitting a right turn at a red stop light, public education, energy audits, and coordination. Consideration could be given to removing some or all of these measures as mandatory, and giving States the flexibility of deciding whether or not to include these measures in their plans.

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ENERGY AND MINERALS
DIVISION

June 17, 1981

B-203092

Chairmen, Selected Committees and
Subcommittees

SUBJECT: Views on Energy Conservation and the Federal Government's Role (EMD-81-82)

The administration's fiscal year 1982 budget proposals signal a major shift in the Federal Government's role with respect to achieving energy conservation. The proposals would significantly reduce funding for the energy conservation programs carried out by the Department of Energy (DOE)--from $938 million in fiscal year 1981 to $195 million in fiscal year 1982. According to the administration, the basis for its position is that rising energy costs are encouraging major efforts in energy conservation, thereby permitting a substantial curtailment in Federal conservation programs.

During the past 3 years, the General Accounting Office (GAO) has issued a number of reports, to both the Congress and DOE, addressing the Federal Government's efforts to achieve greater energy conservation in the Nation. This report summarizes the key aspects of our past work and contains our views on the proposed 1982 budget for energy conservation. The report is intended to assist the Congress in its continuing deliberations over Federal initiatives in the energy conservation area and in its decisions on the administration's fiscal year 1982 budget proposals.

Based on our past work, the administration's actions to substantially curtail conservation programs raise two areas of concern. First, major decisions on the Federal Government's role in fostering energy conservation continue to be made without a clear understanding of energy conservation's contribution in resolving national energy problems in a timely manner. Second, the abrupt changes in certain Federal programs, as reflected in the fiscal year 1982 proposed budget, may preclude the timely realization of selected energy conservation opportunities since it is not clear to what extent State, local, and private efforts will fill the void left by a substantially reduced Federal effort.

The recent decontrol of energy prices should result in a greater incentive for consumers to identify and implement energy conservation measures. Price increases experienced in the past few years have undoubtedly been the primary contributing factor to decreases in energy demand. However, institutional and other barriers are likely to continue to inhibit consumers' efforts to conserve.

AN OVERALL PLAN STILL NEEDED

A fundamental problem we have found in the overall Federal approach to achieving energy conservation has been the lack of overall long-term energy conservation goals and a comprehensive plan designed to meet such goals. We believe the failure to develop such a plan continues to perpetuate confusion over how much energy conservation is needed, how well the Nation is doing in conserving energy, and what more needs to be done.

Solutions to the Nation's energy problems require actions both to increase the availability of domestic energy supplies and to improve the efficiency of energy use. The actions taken over the last few years highlight the complexities in resolving the Nation's energy problems. For example, efforts to expand domestic supplies have been constrained by environmental and safety issues. Efforts to improve the efficiency of energy use, while meeting with some success, have been confronted with institutional and financial barriers and have not resulted in achieving all available energy conservation opportunities.

With respect to energy conservation, we concluded in past reports that long-term energy conservation goals and a comprehensive plan to meet these goals were needed to effectively direct private sector and Federal initiatives. We believe the failure to take such steps has undermined the Federal Government's efforts to systematically develop a cohesive, effective Federal response in fostering the timely achievement of energy conservation. Thus, neither past administrations nor the current administration, in our view, have had an appropriate framework to guide their decisions in selecting Federal initiatives in the energy conservation area.

We continue to believe that establishing long-term energy conservation goals and a plan to meet those goals would provide a framework to view energy conservation's role in resolving the Nation's energy problems and serve as a basis for determining the type of Federal involvement and the extent of Federal initiatives needed to assure that energy conservation effectively contributes to resolving the Nation's energy problems.

VIEWS ON THE PROPOSED FISCAL YEAR 1982 BUDGET

The administration's fiscal year 1982 budget proposals reflect a fundamentally different view from past administrations regarding the Federal Government's role in achieving energy conservation. The administration's view is based on the premise that market forces will assure that energy conservation will be achieved. Thus the administration has proposed to eliminate certain Federal energy conservation programs and to substantially reduce funding for others.

In our past work evaluating Federal energy conservation policies and programs, we have identified problems and have made suggestions for corrective action. Based on this work we agree with certain of the administration's proposed actions, but are concerned about others. Many of our views were included as comments on the administration's budget proposals which were made available to various congressional committees. 1/ We are including, as Enclosure I in this letter, an overview of the results of our past work evaluating selected DOE energy conservation programs.

Overall, we agree with the administration's decisions to continue a low-income weatherization effort, energy conservation assistance to schools and hospitals, and energy conservation tax credits. (Enclosure I provides more specific comments on these initiatives.) Such initiatives can contribute to achieving energy conservation by overcoming financial barriers which inhibit consumers' efforts to implement energy conservation measures. We also agree with the administration's proposal to eliminate programs providing general energy conservation information to consumers. Our work has shown that DOE's general information programs directed at

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1/"U.S. General Accounting Office: Comments on the President's February 18, 1981, Budget Proposals And Additional Cost Saving Measures", OPP-81-2, March 3, 1981.

residential consumers appeared to contribute little to meeting their information needs.

On the other hand, we are concerned about the administration's decisions to eliminate Federal support for the Residential Conservation Service (RCS) and the Energy Extension Service (EES), and reduce funding for the Federal Energy Management Program (FEMP).

Our work has shown that the Federal Government has a role to play in assuring that residential consumers have the knowledge that will enable them to implement appropriate energy conservation measures. The knowledge these consumers need--comprehensive, site-specific information--can be effectively provided through the RCS and EES programs. If consumers have appropriate information, the increased motivation to conserve brought about by higher energy prices can result in consumers implementing the most effective energy conservation measures.

With respect to FEMP, the Federal Government, as the largest energy user in the Nation, has a unique opportunity to save significant amounts of energy in its facilities and operations and set an example for the Nation. We have concluded in past reports that a high-ranking FEMP office should be established in DOE with broad responsibility and adequate personnel and funding. This office should be directed to pursue energy conservation aggressively within the Federal Government as intended under energy legislation and Executive orders.

CONCLUSIONS

Finding solutions to the Nation's energy problems has been and will continue to be difficult. A shift from past trends will be required on both the supply and demand sides of the energy equation. The actions taken by the 97th Congress concerning energy conservation will affect the Nation's energy situation well beyond the current session. Action on the administration's fiscal year 1982 energy budget proposals will require a balancing of actions to reduce Federal expenditures with actions to resolve the Nation's energy problems. Our past work has identified areas where conservation opportunities exist as well as specific ways to improve Federal energy conservation initiatives through more efficient use of limited Federal resources and by more effectively managing these efforts.

In our view, there continues to be a need for the Federal Government to facilitate and supplement market forces by focusing efforts in areas where barriers inhibit the realization of available energy conservation opportunities. We recognize that decontrolling energy prices will enhance private sector efforts to identify and take advantage of these opportunities. However, we believe there is a need for the Federal Government to (1) take corrective actions to assure that certain ongoing programs are effectively and efficiently implemented and (2) establish overall energy conservation goals and develop a comprehensive plan in support of those goals to facilitate decisions on the type and extent of Federal initiatives needed to realize established goals.

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Copies of this report are being sent to the Director, Office of Management and Budget, and Secretary of Energy.

J. Dexter Peach
Director

Enclosure

VIEWS ON SELECTED DOE ENERGY CONSERVATION PROGRAMS

Program	Results of Past Work	Overall Views
Residential Conservation Service (RCS). Energy Extension Service (EES) 1/	Comprehensive on-site energy audits provide the most effective form of residential energy conservation outreach. We found that DOE was not giving sufficient attention to on-site audits, a central feature of RCS. Further, we found that EES, a program created to solve problems of poor coordination and inadequate funding of governmental outreach programs, was provided limited organizational status in DOE and had not realized congressional intent. We recommended that DOE emphasize on-site audits in its outreach by giving priority to RCS as the centerpiece of an integrated energy conservation outreach strategy and assuring that EES is carried out as envisioned by the Congress.	Consumers need to be aware of their energy conservation opportunities before they can act. Comprehensive on-site audits effectively provide consumers the information they need. The administration proposes to cut the RCS and EES on the basis that utilities will respond to consumer needs when conservation represents an economic alternative. This proposal fails to recognize the timely and important contribution energy conservation can make in the Nation's energy situation and the potential role RCS and EES can make in achieving voluntary energy conservation. Because individual utilities face different supply, demand and cost situations, it is likely that the administration's strategy would result in a fragmented assortment of residential conservation programs. Ultimately, this strategy could lead to years of delay in achieving conservation opportunities.
Building Energy Performance Standards (BEPS) 2/	These standards set limits on the total amount of energy buildings may be designed to use but do not prescribe the details of how this is to be achieved. The standards were intended to correct market imperfections and lack of information. We questioned whether recent estimates of energy savings from BEPS justified a sanction for non-compliance. We recommended that DOE continue to work on the soundness of the standards and consider a voluntary BEPS.	While a mandatory program may not be justified at this time, a voluntary BEPS standard could serve as a benchmark for the building community by reflecting that level of building energy efficiency which can be cost-effectively achieved.
Federal Energy Management Program (FEMP) 3/	We found that the Federal Government has a unique opportunity to save significant amounts of energy. DOE did not have an approved 10-year plan for improving the energy efficiency of Federal buildings as required by law and had not assisted Federal agencies in developing energy conservation plans for their operations. We stated that DOE should be responsible for developing a comprehensive Federal energy conservation plan and that a FEMP office with adequate funding and personnel resources should be established.	In view of the significant future energy and cost savings that a viable and effective FEMP could bring to the Federal Government, we believe an aggressive program should be continued. In our view, DOE should have the leadership role in directing this effort and maintain centralized control over funding for conservation measures in Federal facilities and operations.

VIEWS ON SELECTED DOE ENERGY CONSERVATION PROGRAMS

Program	Results of Past Work	Overall Views
Low Income Weatherization Program 4/	We reported that DOE could not determine the expected impact of the program in terms of energy savings, and had not developed a method to prioritize dwelling units to receive Federal assistance. In a subsequent report, we found that DOE still had not estimated actual energy savings nor developed procedures for selecting homes offering the greatest potential for energy savings and benefiting low-income persons.	A successful low-income weatherization program could go a long way toward reducing the energy bills of low-income households--now estimated at about 12 million. Also, a successful program could have an effect on Federal programs providing fuel assistance to low-income persons--about $2 billion in the fiscal year 1981 budget. Although the administration would continue a low-income weatherization program effort under the Department of Housing and Urban Development's block grant program, it is unclear what level of funding will ultimately be directed to weatherize the homes of low-income persons.
Schools and Hospitals Program 5/	We found that this program was not an effective use of Federal funds when compared to other DOE conservation programs. We recommended that the program be adjusted to provide more energy audits to institutions which want and could benefit from them.	Continuing the program with a focus on providing energy audits for institutions which want and could benefit from them can increase overall energy savings without increasing program funding.
Voluntary Truck and Bus Fuel Economy Program 6/	We reported that although much had been accomplished by the industry voluntarily, significant potential energy savings were still possible by improving the fuel efficiency of heavy trucks. We concluded that the program could be more effective if DOE placed a higher priority on the program.	While it is unclear what impact the administration's budget will have on improving the efficiency of heavy trucks, significant potential energy savings are still possible. An effective Federal program could foster the achievement of these savings in a timely manner.
Cogeneration Activities 7/	We found that in the paper and pulp, chemical and petroleum refining industries, there are potential energy savings by using cogeneration. We recommended that DOE develop a coherent Federal policy consistent with State and regional interests to encourage coal and other alternative fuel use for cogeneration with a controlled shift away from oil and natural gas.	While it is unclear what impact the administration's budget will have on cogeneration activities, we believe that a coherent Federal policy would encourage greater cogeneration development.

VIEWS ON SELECTED DOE ENERGY CONSERVATION PROGRAMS

Program	Results of Past Work	Overall Views
State Energy Conservation Program (SECP) 8/	We reported that the administration and operation of SECP could be improved in the areas of assessing program impact, accounting of funds, maintaining program compliance and providing technical assistance. In a second report, we found that the energy savings reported for 1978 by the States were overstated and unsupported.	SECP has been effective in terms of developing--for the first time--a capability to manage energy programs in many States. The loss of Federal funds may cause some States, because of budget constraints, to eliminate State energy offices, resulting in a loss of this management and coordination activity at the State level. This immediate loss would affect not only the conservation area, but would also affect the States' growing responsibilities in emergency planning activities, such as gasoline supply distribution.
Appliance Efficiency Standards	We have not issued any reports evaluating the appliance efficiency standards program.	In commenting on past administration's energy proposals, we supported the establishment of appliance efficiency standards. An important consideration when deciding to establish appliance standards is that without a Federal standard, States are likely to establish their own standards. Manufacturers could be forced to comply with a number of different standards. In our view, Federal standards would assure a level of uniformity as well as assure that energy efficient appliances are produced.
Energy Conservation Tax Credits	We have not performed any work specifically evaluating the energy conservation tax credits.	We have, in the past, supported tax credits as an incentive for consumers to achieve energy conservation opportunities. We believe that the impact of the existing tax credits should be closely monitored to assure that they are effectively contributing to the achievement of available energy conservation opportunities.
Energy Conservation Information Programs--Residential 9/	In our residential energy conservation outreach work, we found that many DOE information programs were not meeting consumer's information needs and did not add to the information being provided by non-DOE sources.	We support the administration's general position that many of DOE's information programs are contributing little to meet the needs of consumers. However, we believe that an information program focused around comprehensive, on-site energy audits can effectively contribute to the achievement of residential energy conservation opportunities.

NOTES

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2/"Improved Data And Procedures Needed For Development And Implementation of Building Energy Performance Standards," EMD-81-2, Dec. 23, 1980.

3/"Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs," EMD-78-2, Dec. 22, 1977.

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"Transportation Energy Conservation In The Federal Government," EMD-79-3, Jan. 25, 1979.

"Energy-Saving Strategies For Federal Procurement," EMD-79-68, June 19, 1979.

"The Federal Government Needs A Comprehensive Program To Curb Its Energy Use," EMD-80-11, Dec. 12, 1979.

4/"Evaluation Of Four Energy Conservation Programs--Fiscal Year 1977," EMD-78-81, Nov. 21, 1978.

"Delays And Uncertain Energy Savings In Programs To Promote State Energy Conservation," EMD-80-97, Sept. 2, 1980.

5/"The Energy Conservation Program For Schools And Hospitals Can Be More Effective," EMD-81-47, March 23, 1981.

6/"The Federal Government Should More Actively Promote Energy Conservation By Heavy Trucks," EMD-80-40, Mar. 13, 1980.

7/"Industrial Cogeneration--What It Is, How It Works, Its Potential," EMD-80-7, Apr. 29, 1980.

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"Slow Progress and Uncertain Energy Savings In Program To Weatherize Low Income Homes," EMD-80-59, May 15, 1980.

9/Ibid. "Residential Energy Conservation Outreach Activities--A New Federal Approach Needed."

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"Federal Efforts To Ensure The Effectiveness And Safety Of Thermal Insulation Can Be Improved," EMD-80-4, Nov. 26, 1979.

"Uncertainties About The Effectiveness of Federal Programs To Make New Buildings More Energy Efficient," EMD-80-32, Jan. 28, 1980.

"The Government Should Buy More Fuel-Efficient Trucks And Truck Tractors," EMD-80-27, Feb. 21, 1980.

"How the Petroleum Refining Industry Approaches Energy Conservation--A Case Study," EMD-80-55, June 13, 1980.

"Energy Conservation: An Expanding Program Needing More Direction," EMD-80-82, July 24, 1980.

"Actions Needed To Increase Bicycle/Moped Use In The Federal Community," EMD-81-41, Jan. 19, 1981.

"The Department of Energy Should Provide Leadership To Assure Near-Term Gasoline Conservation Opportunities Are Realized," EMD-81-52, Apr. 13, 1981.

LIST OF ADDRESSEES FOR GAO REPORT ON ENERGY CONSERVATION (EMD-81-82)

The Honorable Mark O. Hatfield
Chairman, Committee on Appropriations
United States Senate

The Honorable Pete V. Domenici
Chairman, Committee on the Budget
United States Senate

The Honorable James A. McClure
Chairman, Subcommittee on Interior
Committee on Appropriations
United States Senate

The Honorable James A. McClure
Chairman, Committee on Energy and
Natural Resources
United States Senate

The Honorable Lowell P. Weicker, Jr.
Chairman, Subcommittee on Energy
Conservation and Supply
Committee on Energy and Natural
Resources
United States Senate

The Honorable Jamie L. Whitten
Chairman, Committee on Appropriations
House of Representatives

The Honorable James R. Jones
Chairman, Committee on the Budget
House of Representatives

The Honorable Sidney R. Yates
Chairman, Subcommittee on Interior
Committee on Appropriations
House of Representatives

The Honorable Tom Bevill
Chairman, Subcommittee on
Energy and Water Development
Committee on Appropriations
House of Representatives

The Honorable John D. Dingell
Chairman, Committee on Energy
and Commerce
House of Representatives

The Honorable Richard L. Ottinger
Chairman, Subcommittee on Energy
Conservation and Power
Committee on Energy and Commerce
House of Representatives

The Honorable Don Fuqua
Chairman, Committee on Science
and Technology
House of Representatives

Senator FORD. Thank you very much, Mr. Duffus.

Doctor, I think we will proceed with your statement, then I can ask questions and we may kind of go back and forth just a little bit.

STATEMENT OF HON. JOHN H. GIBBONS, DIRECTOR, OFFICE OF TECHNOLOGY ASSESSMENT, ACCOMPANIED BY RICHARD ROWBERG, PROGRAM MANAGER FOR ENERGY; NANCY NAISMITH AND MARY PROCTER, PROJECT DIRECTORS

Dr. GIBBONS. Thank you, Mr. Chairman.

The Office of Technology Assessment in its capacity of advising the Congress has published a number of important studies on energy conservation, among its many studies of energy technologies. This testimony is based upon the knowledge we have gathered in carrying out that work as well as my own experience, both in and out of the Federal Government since 1970 with respect to energy conservation and technology.

I have with me my program manager for energy, Richard Rowberg, and two project directors, Nancy Naismith and Mary Procter.

I will begin by discussing what I consider to be the central points of the issue. They are, first, the contribution that conservation has and will continue to make to the Nation's economic health and security, and second, the importance of an active, effective Federal role in energy conservation. It is important to keep these points in mind when considering the structure of the proposed legislation, the extent to which it is targetted on conservation, its effect on implementation of conservation programs, and its funding levels. Later in my testimony, I will make a few specific comments about the proposed legislation.

I will first clarify what I mean by "energy conservation." This term, unfortunately, has been overly associated with curtailment of energy and the self-denial, sacrifice and hardship that it implies. Curtailment means such losses of comfort and convenience as lowered thermostats, actions taken in quick response to cut our losses in an energy emergency. Energy conservation, on the other hand, means providing equal or greater services with less energy use. These savings come about because of capital investment in energy efficiency or better management of energy resources, or both.

Conservation has been this Nation's principal enduring response to the rapid increase in energy prices in the last 10 years. Since the first price shock in 1973-74 all indicators have shown that the United States is developing a more energy efficient economy. The ratio of the growth rates of energy demand to GNP has fallen from 1.1 during the decade of 1960 to 1970 to 0.4 by the end of the 1970's. In other words, we are now requiring less than half the growth in energy demand to support a given growth rate in GNP than we did prior to the 1973 embargo.

This gain in efficiency has been even more spectacular since the second price shock of 1978-79. As a result primarily of a conservation response that went well beyond the most optimistic projections made prior to that shock, the United States is now importing only 13 percent of its energy needs compared to 24 percent in 1977. These savings represent $40 to $50 billion annually diverted from the Mideast for oil imports to more productive use creating jobs and U.S. goods and services. The savings in reduced economic vulnerability to oil disruption can't be quantitifed. The response has been substantially in excess of that expected from changes in energy price. Thus, consumer awareness and other results of Federal activities in conservation have played a very important role in this highly important response.

Although the decoupling of the energy demand growth from GNP growth rates cannot continue indefinitely, there is considerable evidence that further opportunities for substantial improvements in energy efficiency abound. To demonstrate this claim, let us consider what is possible with buildings. This is appropriate since nearly all the programs affected by the legislation being discussed today concern conservation in that sector.

Despite the impressive gains already made, the potential impact of further cost-effective investments in the energy of buildings is not trivial. In a recent assessment, OTA has estimated that in response to higher energy prices, an additional 20 percent reduction in energy use by a large fraction of the country's building stock will ultimately take place, a so-called price response.

Our study also notes, however, that there are further, cost-effective investment opportunities for another 30 percent reduction. Of these, we estimate that almost a third involve investments that would payback in energy savings in less than 2 years. The total amount of these potentially unrealized annual energy savings is about 3 quads, which is equivalent to 1.5 million barrels of oil per day or the electricity output of more than 50, 1,000 MW powerplants. We have calculated that the investment cost of achieving most of that potential savings is about 60 percent of the capital cost of producing the equivalent amount of electricity or about half the capital cost of producing the equivalent amount of synthetic fuels from coal.

In the interest of time I will skip a section of my testimony that gives a couple of examples.

Although the data are still scanty, surveys of actual investments in energy efficiency confirm these results. Assembled data on about two dozen surveys of actual improvements in energy efficiency in a total of over 200 schools, office buildings, and other commercial buildings, showed that the buildings saved an average of almost 20 percent of their preretrofit energy use at an average cost of about $0.65 per square foot. That is capital investment. On average the owners were able to recover their capital cost in less than 2 years. In a large survey of improvements to single-family buildings, the Tennessee Valley Authority found that over 100 homes, retrofit with investments in attic insultation, saved an average of 25 percent of their prior electric heating bill. The total capital cost to achieve this reduction on average was recovered in less than 2 years and corresponds to producing electricity at a capital cost of $400 per kW compared to over $1,000 per kW if the alternative of making new powerplants had been taken.

We believe, Mr. Chairman, there are two principal reasons for a continued Federal involvement in conservation.

First, the goals of reducing the impact of higher energy prices and our vulnerability to supply shortages are truly national economic and security goals. To the extent we import less oil through increased energy efficiency we can reduce the pressure which drives up the price of oil for ourselves and our allies. This action reduces the upward pressure of energy prices on the general price level, and the task of controlling inflation is eased. Similarly, cost-effective conservation can actually decrease inflation to the extent that energy related goods and services are provided at a lower total cost. Finally, to the extent that less investment capital is required to meet our energy needs the pressure on interest rates and capital markets is alleviated, and capital can be used for more constructive purposes.

The second major reason for a Federal role in stimulating conservation concerns the behavior of the market. As has been pointed out by OTA for nearly 7 years, deregulating the price of oil would be the most important step in improving the market incentive for both conservation and supply development. Price deregulation alone, however, is not sufficient to accomplish all that is both cost-effective and in the national interest. Let me give you some examples of the imperfections and peculiarities of the marketplace that prevent the optimum level of energy conservation from coming about, and where there are corresponding public roles to complement market forces.

First, electric utilities are not free enterprise in the classical sense; they are regulated by both the Federal Government and the States which control electricity rates and utility expansion plans. Over the last decade, a tendency to overestimate future electricity demand, despite rapid increases in electricity prices, coupled with certain tax advantages and ratemaking advantages of new construction have led to a widely recognized crisis situation in the electric utility industry in which utilities in many regions have costly excesses in generating capacity and lagging rates of return on investment. The cost of both equity and debt investment capital has risen alarmingly in the last few years and it is not at all clear that continued decisions by individual utilities will produce an economically efficient electric supply and utilization system. Federal assistance to States in comparing the merits of new capacity with utility assistance to conservation, as is being done in Florida with some assistance from federally funded State energy staff, could encourage more efficient use of capital by utilities.

Another sector is privately owned buildings. In the building sector, the party who bears the first cost—the builder or developer—is often not the subsequent owner or tenant who bears the operating cost. There is every incentive for builders to minimize this first cost by compromising on installation of energy efficient equipment or energy-efficient structural components. Then the subsequent owner or tenant is stuck with the higher operating cost. Our surveys of building owners show that in only a few markets—a soft market for office buildings, for example—is there any sign that a tenant will alter his leasing plans based on prospective energy costs.

Senator DOMENICI [presiding]. Would you make that last statement again, please?

Dr. GIBBONS. Yes.

We have completed surveys of major buildings, particularly buildings in urban centers, and we find that in very few situations will a tenant alter his leasing plans based on the prospective costs of energy associated with heating and cooling the building.

In other markets, such as retail or multifamily, we could find no evidence that energy costs affect rents in any way. This is a case in which real estate and business incentives may diverge from the national interest. In such cases, State and local building codes can give a strong impetus to the market.

Federal funding and research have provided and could continue to provide strong stimulus to the development of cost effective building codes. For example, in California the results of DOE sponsored research on energy conservation technologies for single family homes are being used in a cooperative venture between Pacific Gas & Electric and Lawrence Berkeley Laboratory to label the energy efficiency of new homes. This is gaining wide acceptance by both builders and home buyers in that State.

With respect to publicly owned buildings, Mr. Chairman, the energy efficiency of publicly owned buildings, such as schools, hospitals, and government offices suffers from the bias in government budgeting away from capital expenses. Governments are making some operating changes to use energy more efficiently, but find it hard to justify capital investment, such as bond issues, primarily to invest in energy efficiency, even with a payback of a few years. A Federal-State grant program to stimulate capital investments in energy conservation can provide the extra financial incentive to justify the use of public capital for energy conservation.

With respect to research and development, this is another area where government involvement is important. While the private sector can be expected to carry out R. & D. on technologies for the near term that can compete with today's energy prices, the higher risk and longer horizon of mid- and long-term R. & D. corresponding to higher energy price make the latter the domain of the Government just as is the case for certain energy supply technologies.

This general concept of support for long-term research in energy supply appears to be well recognized in current government energy policy; what is not recognized, however, we feel, is that this concept can equally apply to R. & D. on the energy utilization side.

We must expect that energy costs will probably continue to rise as we make the transition away from oil and natural gas in the decades ahead. Consequently, it will be important to continue to look for ways to most economically use energy well into the future, and under conditions of significantly higher energy prices than today. This search is not just a short-term, stop-gap activity, but one that requires sustained support in a manner similar to research on advanced supply technology.

Finally, with respect to buildings occupied by low-income people, although low-income homeowners have curtailed their energy use in substantial and heroic proportions, they have not, by and large, made capital investments in energy efficiency, even though their homes are far more likely to need roof insulation, storm windows, and storm doors. These owners even have greater difficulty obtaining reliable information and capital than do other types of building owners. Low-income renters occupy even less energy-efficient buildings than do low-income owners. The weatherization program, where effectively managed, is capable of retrofitting such buildings for a sum that is little greater than several year's low-income energy assistance grants. In the former case, that is payments for energy retrofitting, the public is helping these people to become more resilient to higher cost energy and less dependent on public assistance. In the latter case just the reverse is unfortunately true. One would hope, therefore, that the latter program would be treated as strictly a stopgap measure, to be used only until the former program can be carried out.

The legislation under discussion attempts to consolidate a large number of Federal and State conservation programs that have evolved over the recent years. By providing funds directly to the States and assuring multiyear funding, the proposed legislation moves in the useful direction of allowing States more flexibility in funding and staffing these conservation programs. There is no doubt that the energy problems and opportunities of a colder State, heavily dependent on fuel oil are quite different from a warm State that uses natural gas. For example, a block grant approach would continue to allow States to target funds specifically to the areas of greatest opportunity. There are, however, a number of points about the proposed legislation as it is currently written which may seriously undercut these valuable objectives.

First, S. 1544 would allow States to use funds for supply research and development activities as well as for conservation. The addition of supply as an option for State spending would encourage the diversion of funds from the conservation objectives to a myriad of other uses. For example, a State could decide that the best use of its funds would be to augment an oil or gas drilling program or initiate a program for wind machine development. A State could also accept matching contributions from supply corporations and thereby directly subsidize energy supply development. While there may be many valid reasons for States to engage in such activities, provisions of the bill as it now stands could substantially dilute its alledged objective to achieve more efficient use of energy resources. Supply development is already subsidized in many direct and indirect ways.

Second, the level of funding authorized by this bill would be substantially below the amounts formerly available for some of the specific programs. While it is clear that funds are probably not going to be available at their previous levels, the proposed $200 million, divided into more than 50 pieces, fragments a formerly substantial and integrated effort. I believe it is useful, in considering this legislation, to understand the extent of these changes, and I will illustrate this by two brief examples.

1. About $260 million has been spent in the 2 years since the program was first implemented for the audit and retrofit of schools, hospitals, and institutional public buildings under the schools and hospitals program. Almost 60,000 buildings have been audited—some 15 percent of all eligible schools and 25 percent of all eligible hospitals. About 8,000 grants for retrofit have been approved. States that have surveyed the results report an average energy savings of 20 percent by participating institutions, through both capital investment and operations changes. These savings mean less

energy consumed and, in addition, help to hold down school and hospital costs. I note, however, that even if no net local cost savings had accrued the savings to the Nation in terms of oil imports, air pollution, and other national goals would have been substantial.

2. In 1981, over $1.8 billion was spent for low income energy assistance payments for about 10 million households, through the health and human services program. While these funds pay energy bills, they do not save any energy. This amount is nine times as large as the 1981 budget for weatherizing the homes of the poor, and nine times as large as the entire proposed authorization level for the block grants before you today. The weatherization program has made important adjustments over the past few years; it has acquired more skilled labor, reached more rental properties, and generally improved its administrative capability. By late 1981, the program was weatherizing at the rate of 30,000 dwelling units a month. Now there are about 10 million energy-efficient low-income dwelling units in the United States. So that represents more than 25 years worth even at the present high rate of retrofit. Weatherization is not easy, but it can be done well. It appears to be effective, and will greatly reduce the funds needed for low-income energy assistance.

Third, S. 1544 proposes a major change in the structure of the conservation programs. Coming at this time, these changes may reduce the momentum of energy savings that has built up within these programs and the national conservation movement in general. Many of these programs are now through their shakedown stage and beginning to work well. While there is room for improvement, it would be very difficult for States if the programs are abruptly terminated. The problem is long term and must be attacked on that basis. State governments are faced with significant revenue cuts and many are constitutionally constrained against obtaining more revenues. They are unable to make rapid shifts to follow Federal changes and come up with matching funds in the middle of a fiscal year. They generally do not have the technical expertise to effectively administer a program as broad in scope as proposed by this legislation. While the States can undoubtedly develop these capabilities, it will require time.

Fourth, the bill removes any Federal integration of energy conservation efforts. While diversity of approach is important for conservation because of many differences among States and localities, the effort will be less efficient if it is totally diffused to the 50 States. Long-term research, technical assistance, and distribution of information are generally considered appropriate Federal roles and help provide a structure within which the States can tailor programs to meet their own needs. This can lead to coherent and efficient use of limited resources. The Federal role in research and standard setting, for example, has reduced the variation among States in setting standards for the energy use of products which confuse national markets for manufacturers.

In conclusion, Mr. Chairman, energy conservation continues to be a unique and powerful contribution to make to the solution of the national energy problem. It is an essential part of an economically efficient society. It reduces our national energy vulnerability, and thereby strengthens our military position, and it helps ameliorate the equity problems arising from rising energy prices. Although price deregulation will go a long way in stimulating energy conservation efforts, in certain sectors of the economy, as illustrated in my testimony, the market cannot be expected to operate without some assistance.

The programs being considered in this legislation have contributed to a dramatic change in our country's use of energy and it could be damaging to our economic health and national security to lose the momentum of this effort now, as progress is being made.

We believe this loss of momentum could be avoided if the legislation took a more gradual approach to phasing in the block grants and provided a mechanism for Federal integration and leadership. The Federal programs passed under EPCA, ECPA and NECPA were designed with a finite life and are just now coming to fruition. A careful consolidation and transfer to the States that would occur over a 2 to 3 year period could maintain the impetus of these efforts while allowing the States to develop the mechanisms they need to effectively continue to carry out their new mandate. Federal funding should reflect the comparative "cost-effectiveness" of conservation activities in contrast to other means of meeting national goals.

Federal leadership to integrate the States' efforts is needed to provide an information base and network, and to carry out the long-term conservation research needed by the Nation as we move through our energy transition. By including provisions for this an approach as advocated by this legislation can do much to assist the market in providing an economically efficient and energy secure future for this country.

Thank you for the chance to be here this morning, Mr. Chairman. I and my associates will be happy to answer any questions or provide any further information.

[The prepared statement of Dr. Gibbons follows:]

This copy has been marked by OTA
to show where further
information has
been provided

TESTIMONY OF JOHN H. GIBBONS
DIRECTOR, OFFICE OF TECHNOLOGY ASSESSMENT
BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES
STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981
U.S. SENATE
OCTOBER 16, 1981

THANK YOU FOR THE OPPORTUNITY TO TESTIFY ON THIS IMPORTANT ISSUE. THE OFFICE OF TECHNOLOGY ASSESSMENT IN ITS CAPACITY OF ADVISING THE CONGRESS HAS PUBLISHED A NUMBER OF IMPORTANT STUDIES ON ENERGY CONSERVATION AMONG ITS MANY STUDIES OF ENERGY TECHNOLOGIES. THIS TESTIMONY IS BASED UPON THE KNOWLEDGE WE HAVE GATHERED IN CARRYING OUT THAT WORK AS WELL AS MY OWN EXPERIENCE -- BOTH IN AND OUT OF THE FEDERAL GOVERNMENT SINCE 1973 -- ON ENERGY CONSERVATION ISSUES.

I WILL BEGIN BY DISCUSSING WHAT I CONSIDER TO BE THE CENTRAL POINTS OF THE ISSUE. THEY ARE (1) THE CONTRIBUTION THAT CONSERVATION HAS AND WILL CONTINUE TO MAKE TO THE NATION'S ECONOMIC HEALTH AND SECURITY, AND (2) THE IMPORTANCE OF AN ACTIVE, EFFECTIVE FEDERAL ROLE IN ENERGY CONSERVATION. IT IS IMPORTANT TO KEEP THESE POINTS IN MIND WHEN CONSIDERING THE STRUCTURE OF THE PROPOSED LEGISLATION, THE EXTENT TO WHICH IT IS TARGETTED ON CONSERVATION, ITS EFFECT ON IMPLEMENTATION OF CONSERVATION PROGRAMS, AND ITS FUNDING LEVELS. LATER IN MY TESTIMONY, I WILL MAKE A FEW SPECIFIC COMMENTS ABOUT PROPOSED LEGISLATION.

I WILL FIRST CLARIFY WHAT I MEAN BY ENERGY CONSERVATION. THIS TERM, UNFORTUNATELY, HAS BEEN OVERLY ASSOCIATED WITH CURTAILMENT OF ENERGY AND THE SELF-DENIAL, SACRIFICE AND HARDSHIP THAT IT IMPLIES. CURTAILMENT MEANS SUCH

LOSSES OF COMFORT AND CONVENIENCE AS LOWERED THERMOSTATS, ACTIONS TAKEN IN QUICK RESPONSE TO CUT OUR LOSSES IN AN ENERGY EMERGENCY. ENERGY CONSERVATION ON THE OTHER HAND, MEANS PROVIDING EQUAL OR GREATER SERVICES WITH LESS ENERGY USE. THESE SAVINGS COME ABOUT BECAUSE OF CAPITAL INVESTMENT IN ENERGY EFFICIENCY OR BETTER MANAGEMENT OF ENERGY RESOURCES, OR BOTH. CONSERVATION HAS BEEN THIS NATION'S PRINCIPAL ENDURING RESPONSE TO THE RAPID INCREASE IN ENERGY PRICES IN THE LAST TEN YEARS. SINCE THE FIRST PRICE SHOCK IN 1973-74 ALL INDICATORS HAVE SHOWN THAT THE U.S. IS DEVELOPING A MORE ENERGY EFFICIENT ECONOMY. THE RATIO OF THE GROWTH RATES OF ENERGY DEMAND TO GNP HAS FALLEN FROM 1.1 DURING THE DECADE OF 1960 TO 1970 TO 0.4 DURING THE DECADE OF THE 70'S. IN OTHER WORDS, WE ARE NOW REQUIRING LESS THAN HALF THE GROWTH IN ENERGY DEMAND TO SUPPORT A GIVEN GROWTH RATE IN GNP THAN WE DID PRIOR TO THE 1973 EMBARGO. THIS GAIN IN EFFICIENCY HAS BEEN EVEN MORE SPECTACULAR SINCE THE SECOND PRICE SHOCK OF 1978-79. AS A RESULT PRIMARILY OF A CONSERVATION RESPONSE THAT WENT WELL BEYOND THE MOST OPTIMISTIC PROJECTIONS MADE PRIOR TO THAT SHOCK, THE U.S. IS NOW IMPORTING ONLY 13% OF ITS ENERGY NEEDS COMPARED TO 24% IN 1977. THESE SAVINGS REPRESENT 40 TO 50 BILLION ANNUALLY DIVERTED FROM THE MID-EAST FOR OIL IMPORTS TO MORE PRODUCTIVE USE CREATING JOBS AND U.S. GOODS AND SERVICES. THE SAVINGS IN REDUCED ECONOMIC VULNERABILITY TO OIL DISRUPTION CAN'T BE QUANTIFIED. THE RESPONSE HAS BEEN SUBSTANTIALLY IN EXCESS OF THAT EXPECTED FROM CHANGES IN ENERGY PRICE. THUS, CONSUMER AWARENESS AND OTHER RESULTS OF FEDERAL ACTIVITIES IN CONSERVATION HAVE PLAYED A VERY IMPORTANT ROLE IN THIS HIGHLY IMPORTANT RESPONSE.

ALTHOUGH THE DECOUPLING OF THE ENERGY DEMAND GROWTH FROM GNP GROWTH RATES CANNOT CONTINUE INDEFINITELY, THERE IS CONSIDERABLE EVIDENCE THAT FURTHER OPPORTUNITIES FOR SUBSTANTIAL IMPROVEMENTS IN ENERGY EFFICIENCY ABOUND. TO DEMONSTRATE THIS CLAIM, LET US CONSIDER WHAT IS POSSIBLE WITH BUILDINGS. THIS

IS APPROPRIATE SINCE NEARLY ALL THE PROGRAMS AFFECTED BY THE LEGISLATION BEING DISCUSSED TODAY CONCERN CONSERVATION IN THAT SECTOR.

THE POTENTIAL IMPACT OF FURTHER, COST-EFFECTIVE INVESTMENTS IN THE ENERGY EFFICIENCY OF BUILDINGS IS NOT TRIVIAL. IN A RECENT ASSESSMENT, OTA HAS ESTIMATED THAT IN RESPONSE TO HIGHER ENERGY PRICES, AN ADDITIONAL 20% REDUCTION IN ENERGY USE BY A LARGE FRACTION OF THE COUNTRY'S BUILDING STOCK WILL ULTIMATELY TAKE PLACE. OUR STUDY ALSO NOTES, HOWEVER, THAT THERE ARE FURTHER, COST-EFFECTIVE INVESTMENT OPPORTUNITIES FOR ANOTHER 30% REDUCTION. OF THESE, WE ESTIMATE THAT ALMOST A THIRD INVOLVE INVESTMENTS THAT WOULD PAYBACK IN ENERGY SAVINGS IN LESS THAN TWO YEARS. THE TOTAL AMOUNT OF THESE POTENTIALLY UNREALIZED ANNUAL ENERGY SAVINGS IS ABOUT 3 QUADS WHICH IS EQUIVALENT TO 1.5 MILLION BARRELS OF OIL PER DAY OR THE ELECTRICITY OUTPUT OF MORE THAN 50 1000 MW POWERPLANTS. WE HAVE CALCULATED THAT THE INVESTMENT COST OF ACHIEVING MOST OF THAT POTENTIAL SAVINGS IS ABOUT 60% OF THE CAPITAL COST OF PRODUCING THE EQUIVALENT AMOUNT OF ELECTRICITY OR ABOUT HALF THE CAPITAL COST OF PRODUCING THE EQUIVALENT AMOUNT OF SYNTHETIC FUELS FROM COAL.

See attachment Ci

the sum of savings not realized for commerci and multi-family buildings in Table 4

TO BRING THIS POINT CLOSER TO THE KIND OF NUMBERS WE ARE ALL USED TO DEALING WITH, LET ME ILLUSTRATE WITH THE EXAMPLE OF A TYPICAL MULTI-FAMILY BUILDING WITH 100,000 FT^2 AREA, HEATED WITH ELECTRICITY IN A MODERATE CLIMATE. WITH NO INVESTMENTS IN ENERGY EFFICIENCY THE ENERGY BILL FOR SUCH A BUILDING WAS ESTIMATED TO BE OVER $100,000 PER YEAR. WITH AN INVESTMENT OF UNDER 40¢ A SQUARE FOOT OR ABOUT $36,000, WE DETERMINED THAT THIS BUILDING COULD SAVE MORE THAN $20,000 PER YEAR ANNUALLY ON ITS ENERGY BILL. THE CAPITAL COST IS FULLY RECOVERED IN LESS THAN TWO YEARS. WITH AN EXPECTED LIFE OF 20 YEARS FOR THESE INVESTMENTS, THEY WOULD GIVE AN ANNUAL REAL RETURN ON INVESTMENT OF MORE THAN 50%. BUT THIS IS NOT THE END OF THE STORY. THE SAME

BUILDING COULD PROFIT FROM STILL MORE INVESTMENT. FOR ANOTHER $2.00 PER SQUARE FOOT -- ABOUT $200,000 -- ANOTHER $25,000 PER YEAR IN ENERGY COSTS COULD BE SAVED. THE COMBINED CAPITAL COST OF BOTH PACKAGES WOULD BE RECOVRED IN FOUR AND A HALF YEARS.

ALTHOUGH THE DATA ARE STILL SCANTY, SURVEYS OF ACTUAL INVESTMENTS IN ENERGY EFFICIENCY CONFIRM THESE RESULTS. ASSEMBLED DATA ON ABOUT TWO DOZEN SURVEYS OF ACTUAL IMPROVEMENTS IN ENERGY EFFICIENCY IN A TOTAL OF OVER TWO HUNDRED SCHOOLS, OFFICE BUILDINGS, AND OTHER COMMERCIAL BUILDINGS, SHOWED THAT THE BUILDINGS SAVED AN AVERAGE OF ALMOST 20% OF THEIR PRERETROFIT ENERGY USE AT AN AVERAGE COST OF ABOUT $.65 PER SQUARE FOOT. ON AVERAGE, THEY WERE ABLE TO RECOVER THEIR CAPITAL COST IN LESS THAN TWO YEARS. IN ONE OF SEVERAL LARGE SURVEYS OF IMPROVEMENTS TO SINGLE-FAMILY BUILDINGS, THE TENNESSEE VALLEY AUTHORITY (TVA) FOUND THAT OVER ONE HUNDRED HOMES, RETROFIT WITH INVESTMENTS IN ATTIC INSULATION, SAVED AN AVERAGE OF 25% OF THEIR PRIOR ELECTRIC HEATING BILL. THE TOTAL CAPITAL COST TO ACHIEVE THIS REDUCTION ON AVERAGE WAS RECOVERED IN LESS THAN 2 YEARS AND CORRESPONDS TO PRODUCING ELECTRICITY AT A CAPITAL COST OF $400 PER KW COMPARED TO OVER $1000 PER KW FOR A NEW POWERPLANT.

See Attachment Cii

FEDERAL ROLE

WHILE THIS DISCUSSION CLEARLY SHOWS WHAT ENERGY CONSERVATION HAS DONE AND CAN DO, IT MAY NOT, BY ITSELF, MAKE A CASE FOR FEDERAL INVOLVEMENT IN STIMULATING FURTHER CONSERVATION. WE BELIEVE THERE ARE TWO PRINCIPAL REASONS FOR SUCH AN INVOLVEMENT.

(1) THE GOALS OF REDUCING THE IMPACT OF HIGHER ENERGY PRICES AND OUR VULNERABILITY TO SUPPLY SHORTAGES ARE TRULY NATIONAL ECONOMIC AND SECURITY GOALS. TO THE EXTENT WE IMPORT LESS OIL THROUGH INCREASED ENERGY EFFICIENCY,

WE CAN REDUCE THE PRESSURE WHICH DRIVES UP THE PRICE OF OIL FOR OURSELVES AND OUR ALLIES. THIS ACTION REDUCES THE UPWARD PRESSURE OF ENERGY PRICES ON THE GENERAL PRICE LEVEL, AND THE TASK OF CONTROLLING INFLATION IS EASED. SIMILARLY, COST-EFFECTIVE CONSERVATION CAN ACTUALLY DECREASE INFLATION TO THE EXTENT THAT ENERGY RELATED GOODS AND SERVICES ARE PROVIDED AT A LOWER TOTAL COST. FINALLY, TO THE EXTENT THAT LESS INVESTMENT CAPITAL IS REQUIRED TO MEET OUR ENERGY NEEDS THE PRESSURE ON INTEREST RATES AND CAPITAL MARKETS IS ALLEVIATED, AND CAPITAL CAN BE USED FOR MORE CONSTRUCTIVE PURPOSES.

(2) THE SECOND REASON FOR A FEDERAL ROLE IN STIMULATING CONSERVATION CONCERNS THE BEHAVIOR OF THE MARKET. AS HAS BEEN POINTED OUT BY OTA FOR NEARLY SEVEN YEARS, DEREGULATING THE PRICE OF OIL WOULD BE THE MOST IMPORTANT STEP IN IMPROVING THE MARKET INCENTIVE FOR BOTH CONSERVATION AND SUPPLY DEVELOPMENT. PRICE DEREGULATION ALONE, HOWEVER, IS NOT SUFFICIENT TO ACCOMPLISH ALL THAT IS BOTH COST-EFFECTIVE AND IN THE NATIONAL INTEREST. LET ME GIVE YOU SOME EXAMPLES OF THE IMPERFECTIONS AND PECULIARITIES OF THE MARKETPLACE THAT PREVENT THE OPTIMUM LEVEL OF ENERGY CONSERVATION FROM COMING ABOUT, AND WHERE THERE IS A PUBLIC ROLE TO COMPLEMENT THE MARKET.

ELECTRIC UTILITIES

ELECTRIC UTILITIES ARE NOT FREE ENTERPRISE IN THE CLASSICAL SENSE; THEY ARE REGULATED BY BOTH THE FEDERAL GOVERNMENT AND THE STATES WHICH CONTROL ELECTRICITY RATES AND UTILITY EXPANSION PLANS. OVER THE LAST DECADE, A TENDANCY TO OVERESTIMATE FUTURE ELECTRICITY DEMAND, DESPITE RAPID INCREASES IN ELECTRICITY PRICES, COUPLED WITH CERTAIN TAX ADVANTAGES AND RATE-MAKING ADVANTAGES OF NEW CONSTRUCTION HAVE LED TO A WIDELY RECOGNIZED CRISIS SITUATION IN THE ELECTRIC UTILITY INDUSTRY IN WHICH UTILITIES IN MANY REGIONS

HAVE COSTLY EXCESSES IN GENERATING CAPACITY AND LAGGING RATES OF RETURN ON INVESTMENT. THE COST OF BOTH EQUITY AND DEBT INVESTMENT CAPITAL HAS RISEN ALARMINGLY IN THE LAST FEW YEARS AND IT IS NOT AT ALL CLEAR THAT CONTINUED DECISIONS BY INDIVIDUAL UTILITIES WILL PRODUCE AN ECONOMICALLY EFFICIENT ELECTRIC SUPPLY AND UTILIZATION SYSTEM. FEDERAL ASSISTANCE TO STATES IN COMPARING THE MERITS OF NEW CAPACITY WITH UTILITY ASSISTANCE TO CONSERVATION (AS IS BEING DONE IN FLORIDA WITH SOME ASSISTANCE FROM FEDERALLY-FUNDED STATE ENERGY STAFF) COULD ENCOURAGE MORE EFFICIENT USE OF CAPITAL BY UTILITIES.

PRIVATELY-OWNED BUILDINGS

IN THE BUILDING SECTOR, THE PARTY WHO BEARS THE FIRST COST -- THE BUILDER OR DEVELOPER -- IS OFTEN NOT THE SUBSEQUENT OWNER OR TENANT WHO BEARS THE OPERATING COST. THERE IS EVERY INCENTIVE FOR BUILDERS TO MINIMIZE THIS FIRST COST BY COMPROMISING ON INSTALLATION OF ENERGY EFFICIENT EQUIPMENT OR ENERGY-EFFICIENT STRUCTURAL COMPONENTS. THEN THE SUBSEQUENT OWNER OR TENANT IS STUCK WITH THE HIGHER OPERATING COST. OUR SURVEYS OF BUILDING OWNERS SHOW THAT IN ONLY A FEW MARKETS -- A SOFT MARKET FOR OFFICE BUILDINGS FOR EXAMPLE -- IS THERE ANY SIGN THAT A TENANT WILL ALTER HIS LEASING PLANS BASED ON PROSPECTIVE ENERGY COSTS. IN OTHER MARKETS, SUCH AS RETAIL OR MULTI-FAMILY, WE COULD FIND NO EVIDENCE THAT ENERGY COSTS AFFECT RENTS IN ANY WAY. THIS IS A CASE IN WHICH REAL ESTATE AND BUSINESS INCENTIVES MAY DIVERGE FROM THE NATIONAL INTEREST. IN SUCH CASES, STATE AND LOCAL BUILDING CODES CAN GIVE A STRONG IMPETUS TO THE MARKET. FEDERAL FUNDING AND RESEARCH HAVE PROVIDED AND COULD CONTINUE TO PROVIDE STRONG STIMULUS TO THE DEVELOPMENT OF COST EFFECTIVE BUILDING CODES. FOR EXAMPLE IN CALIFORNIA THE RESULTS OF DOE SPONSORED RESEARCH ON ENERGY CONSERVATION TECHNOLOGIES FOR SINGLE FAMILY HOMES ARE BEING USED IN A COOPERATIVE VENTURE BETWEEN PACIFIC GAS AND ELECTRIC AND LAWRENCE

See Attach ment Ciii

BERKELY LABORATORY TO LABEL THE ENERGY EFFICIENCY OF NEW HOMES. THIS IS GAINING WIDE ACCEPTANCE BY BOTH BUILDERS AND HOME BUYERS IN THAT STATE.

EVEN IF WE IGNORE INDIVIDUAL HOME OWNERS AND RENTERS, OWNERSHIP OF MULTI-FAMILY AND COMMERCIAL BUILDINGS IS HIGHLY FRAGMENTED AMONG HUNDREDS OF THOUSANDS OF INDIVIDUALS, MANY WITH POOR ACCESS TO RELIABLE INFORMATION ABOUT ENERGY CONSERVATION AND POOR ACCESS TO LONG TERM CAPITAL. IN TODAY'S CAPITAL MARKETS, FUNDS FOR ENERGY RETROFIT ARE AVAILABLE FOR TERMS OF ONE TO THREE YEARS AT RATES TWO POINTS ABOVE PRIME. IN A RECENT SURVEY, WE FOUND THAT LARGER OWNERS OF BUILDINGS WITH GOOD ACCESS TO INTERNAL SOURCES OF CAPITAL AND INFORMATION, SUCH AS INSURANCE COMPANIES, NATIONAL SYNDICATES OF PARTNERSHIPS OR CORPORATIONS, HAD BY AND LARGE MADE ENERGY EFFICIENCY INVESTMENTS IN THEIR BUILDINGS. CONSERVATION INVESTMENTS BY SMALLER OWNERS -- INDIVIDUALS AND LOCAL PARTNERSHIPS -- WERE USUALLY LIMITED TO WHAT COULD BE FINANCED OUT OF ONE YEAR'S ENERGY SAVINGS. FROM THE POINT OF VIEW OF NATIONAL ECONOMIC EFFICIENCY, THIS IS AN ABSURDLY STRINGENT CRITERIA THAT ELIMINATES INVESTMENTS WITH VERY LARGE RETURNS. ONE OF THE KEY REASONS CITED BY OWNERS WAS LACK OF ASSURANCE ABOUT THE RELIABILITY OF ESTIMATES ABOUT ENERGY SAVINGS. THERE IS AN IMPORTANT PUBLIC SECTOR ROLE, MOST EFFICIENTLY ORGANIZED AT THE FEDERAL LEVEL, IN COLLECTING, ANALYZING, ORGANIZING, AND REPORTING DATA ON ACTUAL ENERGY CONSERVATION INVESTMENTS BY DIFFERENT KINDS OF BUILDINGS IN DIFFERENT REGIONS SO THAT OWNERS WILL HAVE RELIABLE DATA ON WHICH TO BASE THEIR INVESTMENT JUDGEMENTS.

PUBLICLY-OWNED BUILDINGS

THE ENERGY EFFICIENCY OF PUBLICLY-OWNED BUILDINGS, SUCH AS SCHOOLS, HOSPITALS AND GOVERNMENT OFFICES SUFFERS FROM THE BIAS IN GOVERNMENT

BUDGETTING AWAY FROM CAPITAL EXPENSES. GOVERNMENTS ARE MAKING SOME OPERATING CHANGES TO USE ENERGY MORE EFFICIENTLY, BUT FIND IT HARD TO JUSTIFY CAPITAL INVESTMENT (SUCH AS BOND ISSUES) PRIMARILY TO INVEST IN ENERGY EFFICIENCY, EVEN WITH A PAY-BACK OF A FEW YEARS. A FEDERAL-STATE GRANT PROGRAM TO STIMULATE CAPITAL INVESTMENTS IN ENERGY CONSERVATION CAN PROVIDE THE EXTRA FINANCIAL INCENTIVE TO JUSTIFY THE USE OF PUBLIC CAPITAL FOR ENERGY CONSERVATION.

RESEARCH AND DEVELOPMENT

ANOTHER AREA WHERE GOVERNMENT INVOLVEMENT IS IMPORTANT IS RESEARCH AND DEVELOPMENT. WHILE THE PRIVATE SECTOR CAN BE EXPECTED TO CARRY OUT R&D ON TECHNOLOGIES FOR THE NEAR TERM WHICH CORRESPOND TO TODAYS ENERGY PRICES, THE HIGHER RISK AND LONGER HORIZON OF MID AND LONG TERM R&D MAKE THE LATTER THE DOMAIN OF THE GOVERNMENT JUST AS IS THE CASE FOR CERTAIN ENERGY SUPPLY TECHNOLOGIES. THIS GENERAL CONCEPT OF SUPPORT FOR LONG TERM RESEARCH IN ENERGY SUPPLY APPEARS TO BE WELL RECOGNIZED IN CURRENT GOVERNMENT ENERGY POLICY; WHAT IS NOT RECOGNIZED, HOWEVER, IS THAT THIS CONCEPT CAN EQUALLY APPLY TO R&D ON ENERGY UTILIZATION. EXAMPLES OF PROMISING RESEARCH INCLUDE INVESTIGATION OF HEAT TRANSFER CHARACTERISTICS OF NEW MATERIALS TO REDUCE HEAT LOSS, THE PHYSICS OF ILLIMINATION FOR MORE EFFICIENT LIGHTING AND RESEARCH INTO ELECTROCHEMICAL AND NEW INDUSTRIAL PROCESSES THAT COULD EFFICIENTLY REPLACE PRESENT DAY PROCESSES AS ELECTRICITY AND SOLAR ENERGY BECOME MORE DOMINANT. IN BUILDINGS BASIC AND APPLIED RESEARCH INTO ENERGY CONSCIOUS DESIGNS, ADVANCED AIR DISTRIBUTION AND CONTROL SYSTEMS AND ENERGY STORAGE TECHNOLOGIES FALL WITHIN ANY DEFINITION OF LONG TERM RESEARCH. WE MUST EXPECT THAT ENERGY COSTS WILL PROBABLY CONTINUE TO RISE AS WE MAKE THE TRANSITION AWAY FROM OIL AND NATURAL GAS IN THE DECADES AHEAD. CONSEQUENTLY, IT WILL BE

IMPORTANT TO CONTINUE TO LOOK FOR WAYS TO MOST ECONOMICALLY USE ENERGY WELL INTO THE FUTURE, AND UNDER CONDITIONS OF SIGNIFICANTLY HIGHER ENERGY PRICES THAN TODAY. THIS SEARCH IS NOT JUST A SHORT TERM, STOP GAP ACTIVITY.

BUILDINGS OCCUPIED BY LOW-INCOME PEOPLE

FINALLY, ALTHOUGH LOW-INCOME HOMEOWNERS HAVE CURTAILED THEIR ENERGY USE IN SUBSTANTIAL AND HEROIC PROPORTIONS, THEY HAVE NOT, BY AND LARGE, MADE CAPITAL INVESTMENTS IN ENERGY EFFICIENCY, EVEN THOUGH THEIR HOMES ARE FAR MORE LIKELY TO NEED ROOF INSULATION, AND STORM WINDOWS AND DOORS. THESE OWNERS EVEN HAVE GREATER DIFFICULTY OBTAINING RELIABLE INFORMATION AND CAPITAL THAN DO OTHER TYPES OF BUILDING OWNERS. LOW-INCOME RENTERS OCCUPY EVEN LESS ENERGY-EFFICIENT BUILDINGS THAN DO LOW-INCOME OWNERS. THE WEATHERIZATION PROGRAM, WHERE EFFECTIVELY MANAGED, IS CAPABLE OF RETROFITTING SUCH BUILDINGS FOR A SUM THAT IS LITTLE GREATER THAN SEVERAL YEAR'S LOW-INCOME ENERGY ASSISTANCE GRANTS. IN THE FORMER CASE THE PUBLIC IS HELPING THESE PEOPLE TO BECOME MORE RESILIENT TO HIGHER COST ENERGY AND LESS DEPENDENT ON PUBLIC ASSISTANCE. IN THE LATTER CASE JUST THE REVERSE IS UNFORTUNATELY TRUE. ONE WOULD HOPE, THEREFORE, THAT THE LATTER PROGRAM WOULD BE TREATED AS STRICTLY A STOP GAP MEASURE, TO BE USED ONLY UNTIL THE FORMER PROGRAM CAN BE CARRIED OUT.

DISCUSSION OF S. 1544

THE LEGISLATION UNDER DISCUSSION ATTEMPTS TO CONSOLIDATE A LARGE NUMBER OF FEDERAL AND STATE CONSERVATION PROGRAMS THAT HAVE EVOLVED OVER THE LAST SIX TO SEVEN YEARS TO DEAL WITH THE PROBLEMS I JUST OUTLINED. BY PROVIDING FUNDS DIRECTLY TO THE STATES AND ASSURING MULTI-YEAR FUNDING, THE PROPOSED LEGISLATION MOVES IN THE USEFUL DIRECTION OF ALLOWING STATES MORE FLEXIBILITY IN FUNDING AND STAFFING THESE CONSERVATION PROGRAMS. THERE IS NO DOUBT THAT

THE ENERGY PROBLEMS AND OPPORTUNITIES OF A COLDER STATE, HEAVILY DEPENDENT ON FUEL OIL ARE QUITE DIFFERENT FROM A WARM STATE THAT USES NATURAL GAS. A BLOCK GRANT APPROACH WOULD CONTINUE TO ALLOW STATES TO TARGET FUNDS SPECIFICALLY TO THE AREAS OF GREATEST OPPORTUNITY. THERE ARE, HOWEVER, A NUMBER OF POINTS ABOUT THE PROPOSED LEGISLATION AS IT IS CURRENTLY WRITTEN WHICH MAY SERIOUSLY UNDERCUT THESE VALUABLE OBJECTIVES.

1. FIRST, S. 1544 WOULD ALLOW STATES TO USE FUNDS FOR SUPPLY RESEARCH AND DEVELOPMENT ACTIVITIES AS WELL AS FOR CONSERVATION. THE ADDITION OF SUPPLY AS AN OPTION FOR STATE SPENDING WOULD ENCOURAGE THE DIVERSION OF FUNDS FROM THE CONSERVATION OBJECTIVES TO A MYRIAD OF OTHER USES. FOR EXAMPLE, A STATE COULD DECIDE THAT THE BEST USE OF ITS FUNDS WOULD BE TO AUGMENT AN OIL OR GAS DRILLING PROGRAM OR INITIATE A PROGRAM FOR WIND MACHINE DEVELOPMENT. A STATE COULD ALSO ACCEPT MATCHING CONTRIBUTIONS FROM SUPPLY CORPORATIONS AND THEREBY DIRECTLY SUBSIDIZE ENERGY SUPPLY DEVELOPMENT. WHILE THERE MAY BE MANY VALID REASONS FOR STATES TO ENGAGE IN SUCH ACTIVITIES, PROVISIONS OF THE BILL AS IT NOW STANDS COULD SUBSTANTIALLY DILUTE ITS OBJECTIVE TO ACHIEVE MORE EFFICIENT USE OF ENERGY RESOURCES. SUPPLY DEVELOPMENT IS ALREADY SUBSIDIZED IN MANY DIRECT AND INDIRECT WAYS. ADDITION OF THIS OPTION WOULD MEAN THAT THE CONSERVATION FOCUS OF THE PROGRAMS COULD BE TOTALLY LOST.

2. SECONDLY, THE LEVEL OF FUNDING AUTHORIZED BY THIS BILL WOULD BE SUBSTANTIALLY BELOW THE AMOUNTS FORMERLY AVAILABLE FOR SOME OF THE SPECIFIC PROGRAMS. WHILE IT IS CLEAR THAT FUNDS ARE PROBABLY NOT GOING TO BE AVAILABLE AT THEIR PREVIOUS LEVELS, THE PROPOSED $200 MILLION, DIVIDED INTO MORE THAN 50 PIECES, FRAGMENTS A FORMERLY SUBSTANTIAL AND INTEGRATED EFFORT. I BELIEVE IT IS USEFUL, IN CONSIDERING THIS LEGISLATION, TO UNDERSTAND THE EXTENT OF THESE CHANGES. THIS CAN BE ILLUSTRATED BY TWO EXAMPLES.

A. ABOUT $260 MILLION HAS BEEN SPENT IN THE TWO YEARS SINCE THE PROGRAM WAS FIRST IMPLEMENTED FOR THE AUDIT AND RETROFIT OF SCHOOLS, HOSPITALS AND INSTITUTIONAL PUBLIC BUILDINGS UNDER THE SCHOOLS AND HOSPITALS PROGRAM. ALMOST 60,000 BUILDINGS HAVE BEEN AUDITED -- SOME 15% OF ALL ELIGIBLE SCHOOLS AND 25% OF ALL ELIGIBLE HOSPITALS. ABOUT 8,000 GRANTS FOR RETROFIT HAVE BEEN APPROVED. STATES THAT HAVE SURVEYED THE RESULTS REPORT AN AVERAGE ENERGY SAVINGS OF 20% BY PARTICIPATING INSTITUTIONS, THROUGH BOTH CAPITAL INVESTMENT AND OPERATIONS CHANGES. THESE SAVINGS MEAN LESS ENERGY CONSUMED AND IN ADDITION HELP TO HOLD DOWN SCHOOL AND HOSPITAL COSTS. EVEN IF NO NET LOCAL COST SAVINGS HAD ACCRUED THE SAVINGS TO THE NATION IN TERMS OF OIL IMPORTS, AIR POLLUTION, AND OTHER NATIONAL GOALS WOULD HAVE BEEN SUBSTANTIAL.

B. IN 1981, OVER $1.8 BILLION WAS SPENT FOR LOW INCOME ENERGY ASSISTANCE PAYMENTS FOR ABOUT 10 MILLION HOUSEHOLDS, THROUGH THE HEALTH AND HUMAN SERVICES PROGRAM. WHILE THESE FUNDS PAY ENERGY BILLS, THEY DO NOT SAVE ANY ENERGY. THIS AMOUNT IS NINE TIMES AS LARGE AS THE 1981 BUDGET FOR WEATHERIZING THE HOMES OF THE POOR, AND NINE TIMES AS LARGE AS THE ENTIRE PROPOSED AUTHORIZATION LEVEL FOR THE BLOCK GRANTS BEFORE YOU TODAY. THE WEATHERIZATION PROGRAM HAS MADE IMPORTANT ADJUSTMENTS OVER THE PAST FEW YEARS; IT HAS ACQUIRED MORE SKILLED LABOR, REACHED MORE RENTAL PROPERTIES, AND GENERALLY IMPROVED ITS ADMINISTRATIVE CAPABILITY. BY LATE 1981, THE PROGRAM WAS WEATHERIZING AT THE RATE OF 30,000 DWELLING UNITS A MONTH. (THERE ARE ABOUT 10 MILLION ENERGY-INEFFICIENT LOW-INCOME DWELLING UNITS IN THE U.S.) WEATHERIZATION IS NOT EASY, BUT IT CAN BE DONE WELL. IT APPEARS TO BE EFFECTIVE, AND WILL GREATLY REDUCE THE FUNDS NEEDED FOR LOW-INCOME ENERGY ASSISTANCE.

3. THIRD, THE BILL PROPOSES A MAJOR CHANGE IN THE STRUCTURE OF THE

CONSERVATION PROGRAMS. COMING AT THIS TIME, THESE CHANGES MAY REDUCE THE MOMENTUM OF ENERGY SAVINGS THAT HAS BUILT UP WITHIN THESE PROGRAMS AND THE NATIONAL CONSERVATION MOVEMENT IN GENERAL. MANY OF THESE PROGRAMS ARE NOW THROUGH THEIR SHAKE-DOWN STAGE AND BEGINNING TO WORK WELL. WHILE THERE IS ROOM FOR IMPROVEMENT, IT WOULD BE VERY DIFFICULT FOR STATES IF THE PROGRAMS ARE ABRUPTLY TERMINATED. THE PROBLEM IS LONG TERM AND MUST BE ATTACKED ON THAT BASIS. STATE GOVERNMENTS ARE FACED WITH SIGNIFICANT REVENUE CUTS AND MANY ARE CONSTITUTIONALLY CONSTRAINED AGAINST OBTAINING MORE REVENUES. THEY ARE UNABLE TO MAKE RAPID SHIFTS TO FOLLOW FEDERAL CHANGES AND COME UP WITH MATCHING FUNDS IN THE MIDDLE OF A FISCAL YEAR. THEY GENERALLY DO NOT HAVE THE TECHNICAL EXPERTISE TO EFFECTIVELY ADMINISTER A PROGRAM AS BROAD IN SCOPE AS PROPOSED BY THIS LEGISLATION. WHILE THE STATES CAN UNDOUBTEDLY DEVELOP THESE CAPABILITIES, IT WILL TAKE TIME.

4. FOURTH THE BILL REMOVES ANY FEDERAL INTEGRATION OF ENERGY CONSERVATION EFFORTS. WHILE DIVERSITY OF APPROACH IS IMPORTANT FOR CONSERVATION BECAUSE OF MANY DIFFERENCES AMONG STATES AND LOCALITIES, THE EFFORT WILL BE LESS EFFICIENT IF IT IS TOTALLY DIFFUSED TO THE 50 STATES. LONG-TERM RESEARCH, TECHNICAL ASSISTANCE, AND DISTRIBUTION OF INFORMATION ARE GENERALLY CONSIDERED APPROPRIATE FEDERAL ROLES AND HELP PROVIDE A STRUCTURE WITHIN WHICH THE STATES CAN TAILOR PROGRAMS TO MEET THEIR OWN NEEDS. THIS CAN LEAD TO COHERENCE AND EFFICIENT USE OF LIMITED RESOURCES. THE FEDERAL ROLE IN RESEARCH AND STANDARD SETTING, FOR EXAMPLE, HAS REDUCED THE VARIATION AMONG STATES IN SETTING STANDARDS FOR THE ENERGY USE OF PRODUCTS WHICH CONFUSE NATIONAL MARKETS FOR MANUFACTURERS.

CONCLUSION

ENERGY CONSERVATION HAS A UNIQUE AND POWERFUL CONTRIBUTION TO MAKE TO THE

SOLUTION OF THE NATIONAL ENERGY PROBLEM. IT IS AN ESSENTIAL PART OF AN ECONOMICALLY EFFICIENT SOCIETY. IT REDUCES OUR NATIONAL ENERGY VULNERABILITY, AND THEREBY STRENGTHENS OUR MILITARY POSITION, AND IT HELPS AMELIORATE THE EQUITY PROBLEMS ARISING FROM RISING ENERGY PRICES. ALTHOUGH PRICE DEREGULATION WILL GO A LONG WAY IN STIMULATING ENERGY CONSERVATION EFFORTS, IN CERTAIN SECTORS OF THE ECONOMY, AS ILLUSTRATED IN MY TESTIMONY, THE MARKET CANNOT BE EXPECTED TO OPERATE WITHOUT SOME ASSISTANCE.

THE PROGRAMS BEING CONSIDERED IN THIS LEGISLATION HAVE CONTRIBUTED TO A DRAMATIC CHANGE IN OUR COUNTRY'S USE OF ENERGY AND IT COULD BE DAMAGING TO OUR ECONOMIC HEALTH AND NATIONAL SECURITY TO LOSE THE MOMENTUM OF THIS EFFORT NOW, AS PROGRESS IS BEING MADE.

WE BELIEVE THIS LOSS OF MOMENTUM COULD BE AVOIDED IF THE LEGISLATION TOOK A MORE GRADUAL APPROACH TO PHASING IN THE BLOCK GRANTS AND PROVIDED A MECHANISM FOR FEDERAL INTEGRATION AND LEADERSHIP. THE FEDERAL PROGRAMS PASSED UNDER EPCA, ECPA AND NECPA WERE DESIGNED WITH A FINITE LIFE AND ARE JUST NOW COMING TO FRUITION. A CAREFUL CONSOLIDATION AND TRANSFER TO THE STATES THAT WOULD OCCUR OVER A TWO TO THREE YEAR PERIOD COULD MAINTAIN THE IMPETUS OF THESE EFFORTS WHILE ALLOWING THE STATES TO DEVELOP THE MECHANISMS THEY NEED TO EFFECTIVELY CONTINUE TO CARRY OUT THEIR NEW MANDATE. FEDERAL FUNDING SHOULD REFLECT THE COMPARATIVE "COST-EFFECTIVENESS" OF CONSERVATION ACTIVITIES IN CONTRAST TO OTHER MEANS OF MEETING NATIONAL GOALS.

FEDERAL LEADERSHIP TO INTEGRATE THE STATES' EFFORTS ARE NEEDED TO PROVIDE AN INFORMATION BASE AND NETWORK, AND TO CARRY OUT THE LONG-TERM CONSERVATION RESEARCH NEEDED BY THE NATION AS WE MOVE THROUGH OUR ENERGY TRANSITION. BY INCLUDING PROVISIONS FOR THIS AN APPROACH AS ADVOCATED BY THIS LEGISLATION CAN DO MUCH TO ASSIST THE MARKET IN PROVIDING AN ECONOMICALLY EFFICIENT AND ENERGY SECURE FUTURE FOR THIS COUNTRY.

THANK YOU FOR YOUR ATTENTION AND I WILL BE HAPPY TO ANSWER ANY QUESTIONS OR PROVIDE ADDITIONAL INFORMATION YOU MAY REQUIRE.

A. The Energy Efficiency and Condition of the Low-Income Housing Stock

A careful analysis by the Urban Institute of energy-saving features and occupants' income has been done for single-family houses based on data from the 1976 housing survey. The results are shown in Table A. Of about 50 million single-family houses, about 14 million are occupied by low-income people and of these 9.4 million lack at least one energy-saving feature (attic insulation, storm windows and storm door). About 2.8 million of these units occupied by low-income people lack all three energy saving features.

There is no data on precisely how many energy-inefficient units occupied by low-income people there are in dwelling units in buildings with 2-4 units. Of the 11 million such units, an estimated 7 million (according to the Urban Institute) lack either storm doors or attic insulation or both. In all about 2.6 million households with incomes under $7,999 per year lived in buildings with 2-4 units. If it is assumed that 70% of these live in energy-inefficient dwelling units this would be an estimated 1.8 million households.

To summarize:

— 9.4 million households with incomes under $8,000 living in single-family houses lacking storm windows, storm doors or attic insulation or all three (see Table A).

— 1.8 million households with incomes under $8,000 living in buildings of 2-4 units with lacking attic insulation or storm windows.

TOTAL — 11.2 million households.

There is no data at all on energy efficiency of buildings with 5 or more dwelling units. About 3.2 million households with incomes below $8,000 lived in such buildings in 1977. About 1.2 million of these are in public housing projects.

Other Structural Deficiencies

Another point about the condition of low-income housing is important for weatherization policy-making. According to the Urban Institute analysis, of the 5 million single-family houses lacking both attic insulation, and storm windows and doors, more than half of them are also structurally inadequate defined in the housing survey as lacking separate kitchen, bathroom, or with holes in roof or floor, or lacking a heating system. These units present housing problems that go beyond energy efficiency.

Source: Andreassi, Michael; Yap, Lorene; and Lee, Olson, The Impact of Residential Energy Consumption on Households, the Urban Institute, June 1980.

TABLE A

ENERGY EFFICIENCY CHARACTERISTICS OF SINGLE FAMILY HOUSES OCCUPIED BY LOW-INCOME PEOPLE COMPARED TO ALL SINGLE FAMILY HOUSES

	All Households (millions)	Households with less than $8000 Annual Income in 1977 (millions)	Low Income Households as a Percent of all Households (Percent)
Owner-Occupied Single Family Houses			
All three energy Saving Features Present	23.0	4.3	19%
One or Two Features Missing	16.0	4.2	28%
All Three Features Missing	3.2	1.6	49%
Renter-Occupied Single Family Houses			
All Three Energy Saving Features Present	1.9	.6	33%
One or Two Features Missing	4.7	2.4	51%
All Three Features Missing	1.8	1.2	64%
TOTAL HOUSEHOLDS	50.6	14.3	

SOURCE: 1976 Annual Housing Survey as analyzed by the Urban Institute in Andreassi, Yap and Lee op. cit.

ATTACHMENT B

B. The Administration of the Weatherization Program

We thought it would be helpful to clarify the Federal State relationships under the existing weatherization program, since there seemed to be some uncertainty about this expressed at the hearings. Under current regulations, States administer the funds allocated to them under a formula that gives heavy weight to cold climates. States allocate funds to local areas according to a plan in which they justify their allocation according to climate factors, numbers of low income households needing weatherization, appropriate weatherization measures for different kinds of dwelling units and other factors. States must give priority to the elderly and handicapped but may set other priorities within eligible low-income households. States are expected to contract with community action agencies if practicable and to use CETA labor if practicable, but if not practicable states may contract with other local organizations for weatherization and may authorize the use of contract labor instead of CETA labor. Thus states have some leeway within overall DOE regulations under the current program.

As now organized, weatherization is usually administered separately from the state energy program, from the low-income energy assistance program and from the housing rehabilitation program. Figure A from the forthcoming report The Energy Efficiency of Buildings in Cities diagrams some of the relationships. (The State Energy Office would be an additional administrative unit in this diagram.) Given this administrative fragmentation, one beneficial effect of an energy block grant could be to force coordination between weatherization and state energy programs. It would not solve the coordination problems with housing rehabilitation or low-income energy assistance, however.

The source of this information is an examination (conducted for the Buildings in Cities assessment) of energy programs affecting buildings in five case study cities: Buffalo, New York; Des Moines, Iowa; Jersey City, New Jersey; Tampa, Florida; and San Antonio, Texas, as well as a review of Federal legislation and regulations.

FIGURE A

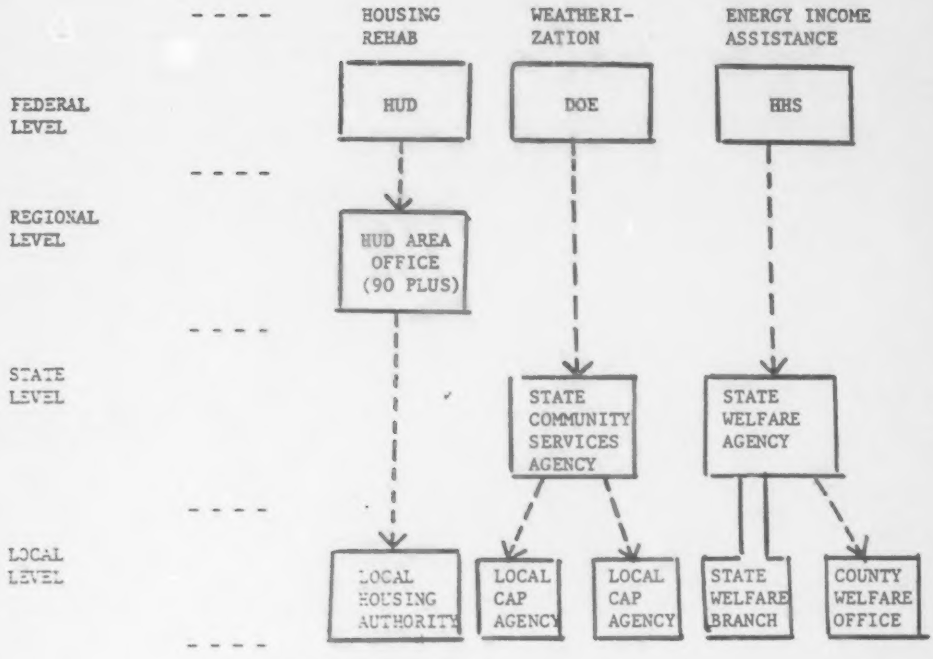

HOUSING REHAB
WEATHERIZATION
ENERGY INCOME ASSISTANCE
FEDERAL LEVEL
HUD
DOE
HHS
REGIONAL LEVEL
HUD AREA OFFICE (90 PLUS)
STATE LEVEL
STATE COMMUNITY SERVICES AGENCY
STATE WELFARE AGENCY
LOCAL LEVEL
LOCAL HOUSING AUTHORITY
LOCAL CAP AGENCY
LOCAL CAP AGENCY
STATE WELFARE BRANCH
COUNTY WELFARE OFFICE

FIGURE A THE AUTHORITIES FOR PROGRAMS AFFECTING THE ENERGY RETROFIT OF HOUSING FOR LOW-INCOME PEOPLE

ATTACHMENT C

C. Further Information on the OTA Assessment -- The Energy Efficiency of Buildings in Cities

The forthcoming OTA assessment, The Energy Efficiency of Buildings in Cities has been approved by the Technology Assessment Board and is being edited for publication and release in January. A table of contents is attached, as well as excerpts from the report as described in the cover memo.

THE ENERGY EFFICIENCY OF BUILDINGS IN CITIES

I. Introduction, Summary and Findings

II. The Importance of City Buildings in National Energy Use: Will Energy Efficiency Make a Difference?

III. Improving the Efficiency of Buildings in Cities

IV. Will Building Owners Invest in City Buildings?

V. Retrofit for the Housing Stock of the Urban Poor

VI. The Prospects for District Heating

VII. Private Sector Efforts to Stimulate Energy Retrofit of Buildings

VIII. Potential Role of Utilities in Improving Energy Efficiency

IX. The Public Sector Role in Urban Building Energy Conservation

X. Public Policy Options

1. More information on the overall potential for energy savings

Energy Savings Potential and Likelihood of Retrofit

The crude analysis of the *likely* energy savings compared to the *possible* energy savings for the building types covered in the report uses a set of simple assumptions consistent with the results of the detailed analysis described in the rest of the chapters of the report.

The detailed assumptions used in the analysis are described in Appendix A to this chapter and include assumptions about:

- the rate of demolition of the current building stock
- the rate of addition of new energy inefficient buildings (since these will require retrofit to become energy efficient).
- the technical potential for retrofits of different types of buildings
- the likelihood that different types of owners will actually retrofit their buildings
- the share of commercial buildings that are owner-occupied
- the share of residential dwelling units that are occupied by low-income people.

Using these assumptions, OTA calculated for each building and owner type

- Projected trend energy use in 2000 (same as 1975 because of cumulative effect of changes due to demolition or additions of energy inefficient buildings).
- Savings if all technically feasible, cost-effective measures were installed.
- Likely savings (either fast payback retrofits only or maintenance and use savings only).
- The gap between technically possible savings and likely savings.
- What share of the gap is represented by fast payback savings that are not likely to be achieved?

Potential and likely savings are shown for each building type in Table 4. The results for all buildings needing retrofit between now and the year 2000 and covered in this report can be summarized as follows:

1. The total trend energy use in the year 2000 of buildings in existence in 1980 plus energy-inefficient buildings built between now and the year 2000 is projected to be 13.8 quads (out of a total building energy use for existing buildings and new energy-inefficient buildings of 26.4 quads.)

2. Of this energy use, technically feasible and cost-effective (to an investor with a long-term perspective and plenty of capital) retrofits could produce 7.1 quads of savings.

3. Only 2.7 quads of savings of this amount are actually likely to be saved because of stringent criteria applied to energy retrofits placed by building owners of different kinds and described in Chapter VI of this report.

4. Of the estimated 4.4 quad gap between the technical potential for savings from retrofit and likely savings from retrofit, about .9 quads are very cost-effective retrofits (fast payback retrofits) that will not be installed because some owners totally lack financial means (low-income owners) or motivation (owners of tenant-metered multi-family buildings) or both. The rest of the gap, 3.5 quads, represents the retrofits that cost somewhat more for the savings they bring about but would still be considered cost-effective investments by an investor with a long perspective. Of these about 2.5 quads are from retrofits of moderate payback.

TABLE 4

THE LIKELY SAVINGS COMPARED TO THE TECHNICALLY POSSIBLE SAVINGS FOR BUILDING TYPES COVERED IN THIS REPORT

Building Types	2000 Trend Energy Use*	2000 Technical Savings Potential	2000 Likely Savings	2000 Gap: Tech. Pot. Saving Not Realized	2000 Gap:Fast Payback Savings Not Realized
		(quads of Btus)			
SINGLE FAMILY OWNERS					
• Low Income	1.6	.8	.2	.7	.2
• Moderate and Upper Income in Cities	3.5	1.8	.9	.9	0
• Moderate and Upper Income Outside Cities (not dealt within report)	(10.2)	(5.1)	(2.5)	(2.5)	(0)
• Mobile Homes	(0.3)	UNKN	UNKN	UNKN	UNKN
MULTI-FAMILY OWNERS					
• Low-Income	0.6	.2	.1	.1	.1
• Moderate and Upper Income Master-metered	0.9	.4	.1	.3	.1
• Moderate and Upper Income Tenant-metered	0.9	.4	.1	.3	.1
TOTAL RESIDENTIAL					
Energy Dealt With In This Report	7.5	3.6	1.4	2.2	0.5
Not Dealt With In This Report	(10.2)				
TOTAL RESIDENTIAL ENERGY	17.7				
COMMERCIAL BUILDINGS					
OFFICE BUILDINGS					
Owner-Occupied	0.7	0.4	0.2	0.2	0
Investor-Owned	0.7	0.4	0.1	0.3	0.1
RETAIL BUILDINGS					
Owner-Occupied	1.1	0.6	0.3	0.3	0
Investor-Owned	1.1	0.6	0.1	0.5	0.2
HOTEL/MOTEL					
Owner-Occupied	0.3	0.2	0.1	0.1	0
Investor-Owned	0.3	0.2	0	0.2	0.1
EDUCATIONAL BUILDINGS	1.7	0.9	0.4	0.5	0
PUBLIC BUILDINGS	0.4	0.2	0.1	0.1	0
COMMERCIAL ENERGY COVERED IN THIS REPORT	6.3	3.5	1.3	2.2	0.4
(Not Covered in This Report)					
Hospitals	(0.7)				
Warehouses	(0.3)				
Religion	(0.3)				
Miscellaneous	(1.1)				
Total	2.4				
TOTAL ENERGY COVERED IN THIS REPORT	13.8	7.1	2.7	4.4	0.9
TOTAL BUILDING ENERGY	26.4				

* Assumes 2000 Energy By Inefficient Buildings = 1975 Use (see text).

11. More information on the report on
surveys of actual retrofit results

The Unpredictability of Savings from Building Retrofits.

There is ample evidence that savings from retrofits to buildings on average are likely to be significant and cost-effective. However, savings are unpredictable for particular buildings for which it is reasonable to expect a considerable variation from estimated savings. This characteristic of building retrofit concerned many building owners interviewed for the analysis of building owner motivation in Chapter VI. While this situation should improve with the maturity of retrofit technology and practice, the site-specific nature of building retrofit described above will make it difficult, for example, to achieve the predictability of gas mileage performance for different models of automobile. The reasons for this situation are described below.

Poor Documentation of Retrofit Results. Despite volumes of theoretical information and thousands of audits, there is still very little documented information on the results of actual retrofits on different types of buildings. In the biggest survey of documented retrofits to date, Howard

Ross and Sue Whalen collected energy savings and retrofit information on 222 buildings. Only 65 of these buildings had complete information to allow a full cost benefit analysis. The distribution of building types is scarcely representative of urban building types. Over half the buildings are schools, and about a fifth are large office buildings. There is only one shopping center, one multi-family building, one small office building, and four hotels. There are no small stores or department stores. (See Table 17)

Individual private retrofit efforts for such buildings as restaurants, retail store chains, supermarkets have also been documented but the results are considered proprietary and are not available for use by other building owners. Data beyond the Ross and Whalen survey has also been assembled by Lawrence Berkeley Laboratory and by a group analyzing 40 building reporting retrofit results in the *Energy User News*. Data from these sources also is very skimpy on retrofits to multi-family buildings and to small office buildings and stores.[22]

Available Data on Retrofits Shows Energy Savings are Variable and Unpredictable. The Ross and Whalen data confirms the general predictions of theoretical analyses of energy retrofits to buildings as a group. The results of their survey are shown in Table 16. The survey also shows, however, that savings vary greatly from building to building including a substantial probability of *increased* energy use and that savings also vary substantially from what was predicted for those buildings for which predictions are available. The specific findings of the study are as follows:

1. *On average retrofits saved considerable energy and were low in capital cost*. Savings for 173 buildings out of a subsample of 195 buildings

TABLE 16

Key Findings

STUDY BY HOWARD ROSS AND SUE WHALEN.

1. Average Cost of Retrofit (1980$)	$\frac{\$0.65 \pm 0.52}{\text{Sq Ft}}$	N = 77
2. Average Savings (Source)	22% ± 15%	N = 173
Average Savings of Electricity	8%	N = 156**
Average Savings of Fossil Fuel	28%	N = 151**
3. Average Savings Including Failed Retrofits — (Source)	19% ± 17.5%	N = 195***
4. Portion of Sample Which Had Failed Retrofit	10% (23 of 223)	
5. Portion of Sample with Less Than 3 Year Simple Payback	89%	N = 65
6. Average Cost of Saved Site Energy		
CRR = 0.25	$3.25 ± 3.15	N = 55*
CRR = 0.16	$2.08 ± 2.02	N = 55
CRR = 1.0	$13.00 ± 12.62	N = 55

*Excludes: (1) 5 European Buildings; (2) 3 "Failed" Retrofits; (3) 2 Buildings Where Cost of Saved Energy Was Over $100 per Million BTU, More Than Twice the Highest Cost of the Rest of the Sample

**Some Buildings All-Electric, or Only Fossil Fuel Data Available

***Less Than 222 (Entire Sample), Because Only Site Figures Available — See Appendix A

SOURCE: BUILDING ENERGY USE COMPILATION AND ANALYSIS--PART C
CONSERVATION PROGRESS IN COMMERCIAL BUILDINGS. DRAFT
HOWARD ROSS AND SUE WHALEN. MAY 1981

with decreases in energy use following the retrofit averaged 22% of pre-retrofit energy use. For almost 90% of the retrofits, the cost of the retrofit was less than three times the first year's actual savings.[23] Savings by building type is shown in Table 17.

2. On the other hand, savings were very variable. Twenty-two of the 155 buildings failed to save any energy at all following a retrofit and some actually increased their energy use. The experience of the buildings that did save energy ranged from a low of 7% savings to a high of 37% savings.

3. Actual savings differed considerably from predicted savings. A set of sixty buildings out of the full sample had some information on predicted savings as well as actual savings. One group within the sixty — a set of eighteen community centers from Columbia, Maryland illustrates the variation from predicted to actual savings. For this group actual savings on average were only 55% of predicted savings. Six buildings had higher savings than predicted while twelve had lower savings. Savings ranged (within one standard deviation) from 80% less than predicted to 50% more than predicted. Several other groups described by Ross and Whalen experienced equal or more savings than predicted. A group of Maine schools had predicted five years paybacks, for example, and achieved three year paybacks. On the other hand, actual for the nine school buildings retrofitted by the American Association of Schools Administration were far less than predicted by computer simulation. An analysis of the poor retrofit performance was done for each school, and identified errors in selecting retrofits, installing them and maintaining them afterwards. In one school, for example, maintenance personnel allowed a blown steam trap to remain in service, although a new one would have paid off in weeks. Apart from these sixty buildings reported on

TABLE 17

BUILDINGS SURVEYED BY HOWARD ROSS AND SUE WHALEN

Percent Savings by Building Type

(Only Includes Buildings Which Attained Energy Savings >0.)

Building Category	Site		Source	
	Ave % Savings	Sample Size	Ave % Savings	Sample Size
Elementary	24%	72	21%	72
Secondary	30%	38	28%	37
Large Office	23%	37	21%	24
Hospital	21%	13	17%	10
Community Center	56%	3	23%	18
Hotel	25%	4	24%	4
Corrections	7%	4	5%	4
Small Office	33%	1	30%	1
Shopping Center	11%	1	11%	1
Multi Family Apartment	44%	1	43%	1

by Ross and Whalen, OTA found no study comparing actual predicted savings.

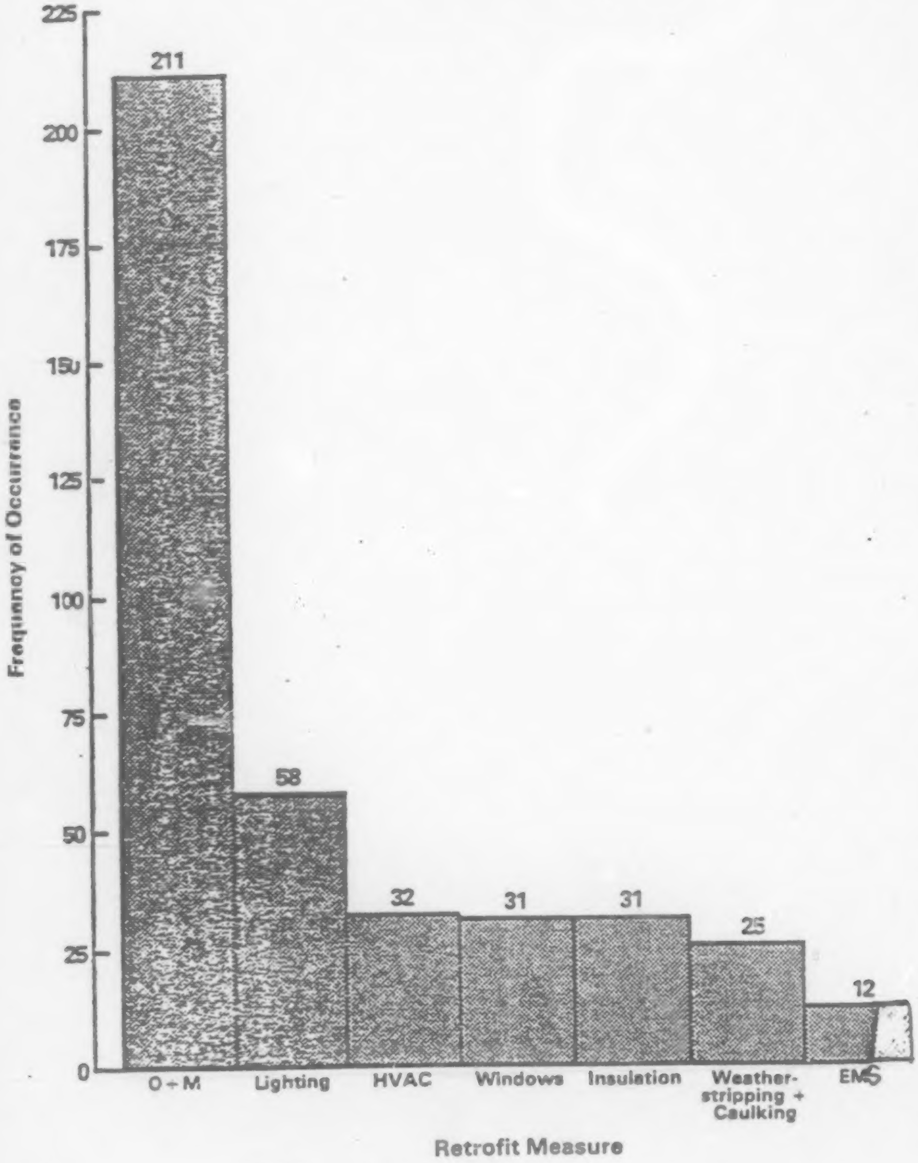
4. Many buildings gradually increased their savings in the years following the retrofit, but some decreased their savings. Out of fifteen buildings with more than one year of data on energy savings following the retrofit, nine buildings increased their savings following the retrofit, but six buildings decreased their energy savings over time.

5. Retrofits were limited to simple, cheap and well-known measures. Improvements in operations and maintenance and lighting measures (including delamping) were the most frequent retrofits. See Figure 19. Only 76 buildings or about one third of the total installed more complex and expensive retrofits to the mechanical system or windows, or installed insulation or energy management systems. No buildings in the survey had installed some of the more "innovative" retrofits described earlier in the chapter — night insulation, passive solar additions, waste heat recovery systems or automatic daylighting control systems. It was not possible to draw any conclusions on the relative effectiveness of individual measures from the survey. It is evident that owners are cautious in their choice of retrofits and are sticking to those that are both inexpensive and well-known.

Improved data should increase the predictability of building retrofit up to a point. Improved data of several kinds would certainly improve the predictability of savings from building retrofits.

1. Improved data on the results of individual retrofits. While there is now substantial data on savings from installing the more common retrofits such as energy management systems, there is still very little data on actual installations of some of the most effective retrofits identified in testing

FIGURE 19 . **Retrofits Attempted**
223 BUILDINGS SURVEYED IN
ROSS AND WHALEN
STUDY



iii. More information on the survey
of private building owner motivation
to retrofit

WILL THE OWNERS OF CITY BUILDINGS INVEST IN THE ENERGY EFFICIENCY OF THEIR BUILDINGS?

Given an investment with a probable high return but a high risk of partial or complete failure, how are the owners of buildings in cities likely to respond to the opportunities to increase the energy efficiency of their buildings?

The motivation of different kinds of owners of different kinds of city buildings was analyzed through interviews with ninety six building owners and managers and a review of the trade literature of different segments of the real estate industry. The conclusion of this analysis was as follows:

1. Energy is now important. After many years of energy price increases building owners reported that the cost of energy was now sufficiently important in the balance of income and expense of their buildings that steps had to be taken to control it. This is a change from general building owner opinion of several years ago.

2. Several categories of building owners with good access to equity capital, reliable professional advice on retrofits and a long holding strategy for their buildings are retrofitting their buildings and installing retrofits of low and even moderate capital cost (as defined by OTA).

3. Several categories of building owners with access only to debt financing and tight constraints on the building's cash flow are not installing even the most highly cost-effective retrofits in their buildings.

4. Other categories of building owners fall in between these two extremes and will consider highly cost-effective retrofits if it is important

to realizing their goals for return on the building.

Owners' criteria for retrofitting their buildings. All the owners interviewed for the study were able to express their criteria for retrofit in terms of simple payback -- how many years it would take for annual energy savings to equal the cost of the retrofit. (See Box B: The Concept of Payback.)

The owners most eager to retrofit their buildings are institutional owners (insurance companies and pension funds) which expect to hold the buildings for a long time and to reap maximum income from them. For these owners it is sensible to cut energy expenses to increase long-term cash flow. The owners least eager to retrofit their buildings are the individual owners of buildings purchased as investments, primarily for cash flow and tax shelter. With only one or two exceptions these owners would only invest in a retrofit if the energy savings equalled or exceeded the retrofit in one year.

The major owner types and their retrofit criteria are shown in Table 4. Of the owner occupants only the large corporations (which own and occupy large office buildings) have good access to internal sources of funds and thus equity capital for retrofit, and only the large corporations seem willing to retrofit their buildings to any extent. Small business owner-occupants and owner-occupants of multi-family buildings expect to hold their buildings for a long time and would benefit from a retrofit, but they are severely constrained by lack of access to anything but very high cost debt capital to finance the retrofit, and they are also severely threatened by the risk of a retrofit that fails to save much energy.

BOX B

The Concept of Payback

The building owners interviewed for this report expressed their interest in energy retrofits in terms of simple payback -- how many years it would take for energy savings to equal the cost of the retrofit. As an example, a retrofit costing $10,000 and savings $5,000 in energy the first year, would have a simple payback of two years.

Although building owners expected increases in fuel and electricity cost over the payback term and took this into account in a general fashion, most of them cited payback terms so short that fuel escalation would not make a substantial difference. Building owners (except banks) did not discount the energy savings in later years by applying an inflation factor and real interest rate to deferred earnings. (See Box A for some examples of calculations of simple payback given the cost of the retrofit per annual million Btu saved and given the expected cost of the fuel saved.)

TABLE 3: Types of Owners Differ in their Retrofit Payback Criteria, Holding Periods, and Access to Financing and Advice

BUILDING OWNER TYPE	TYPICAL PAYBACK CRITERIA	BUILDING FOR OWN USE?	EXPECTED HOLDING PERIOD	ACCESS TO CAPITAL	IN-HOUSE PROFESSIONAL ADVICE
OWNER-OCCUPANTS					
1. Large Corporations	3-5 yrs.	Yes	Long	Good	Good
2. Small Businesses	1 yr.	Yes	Long	Poor	Poor
3. Multi-Family Owner Occupants	1-3 yrs.	Yes	Long	Poor	Poor
4. Condominium	No Data	Yes	Long	Mixed	Fair
INVESTOR-OWNERS					
1. Institutional Owners	5-7 yrs.	No	Long	Good	Good
2. Development Companies	1-3 yrs.	No	Short	Fair	Good
3. Partnership Syndicates	3 yrs.	No	Short	Fair	Good
4. Local Partnerships	1-2 yrs.	No	Short	Poor	Fair
5. Individuals	1 yr.	No	Mixed	Poor	Poor

NOTE: Long Holding Period = More than ten years

Short Holding Period = 8-10 years.

Of the investor-owners, the institutional owners have not only excellent access to capital but also excellent engineering and financial advice. Raising the funds and spreading the risk of retrofit is easy for them. Nationally syndicated partnerships, relatively new to real estate investment, have shorter holding periods for their buildings but good access to capital, good management and technical advice and a policy of "marketing a quality product" to their investors; thus they will invest in moderately cost-effective retrofits with paybacks up to three years. Both local partnerships and development companies are more constrained in their access to equity capital and have correspondingly shorter payback criteria. The most constrained of all the investor-owners, with the least access to capital or professional advice and almost no tolerance for risk, is the individual owner.

What are the prospects for retrofit of different building types? Apart from the owners criteria, the prospects for retrofit are best when a building is in a market where energy efficiency has an impact on the rental prospects for the building and when it generates enough cash flow and/or promises enough resale value to cover the cost of the retrofit.

Commercial and multi-family buildings differ among themselves in terms of sensitivity to energy costs and in their likely cash flow and resale value. With the exception of flourishing markets in dynamic neighborhoods in such cities as Washington, D.C. and San Francisco, multi-family buildings have suffered as a group from lagging rents and therefore lagging resale value (except as condominiums) that reduces their likelihood of retrofit below that of commercial buildings owned by the same owner. Two categories of owners -- institutional owners and national syndicated partnerships --

have limited their investments in multi-family buildings. Where technically possible, owners of multi-family buildings have converted them to tenant utility meters so that owners will no longer be responsible for paying the utility costs. Owners of tenant-metered buildings have little or no current incentive to retrofit their buildings; most believe that it will be a long time before owners of energy efficient multi-family buildings can charge higher rents than owners of similar but inefficient buildings. Owners report that apartment tenants are most sensitive to the appearance of the building and apartment and its location and do not care about its energy efficiency. Owners of master-metered apartment buildings, on the other hand, have strong incentives to cut their energy costs through an energy retrofit but often lack the cash flow to pay for it.

Of the commercial buildings, the markets for hotels and office buildings are more sensitive to energy costs than are those for retail buildings especially shopping centers. The profit per room in a hotel increases for every reduction in energy costs. While office building tenants increasingly have "pass-through" leases which require them to pay in some form for their share of the energy they use, they are beginning to be sensitive to total costs (including utilities) of the space they rent. Owners of office buildings believe that in a soft market, energy costs will be important to keeping building fully rented. Tenants of shopping centers and retail strip buildings, on the other hand, also must pay for utilities as part of their net leases but are primarily concerned about the suitability of the location they have chosen for the goods or services they wish to sell. They generally pay whatever utility costs are necessary.

The overall prospects for the retrofit of different building types owned by different owners can be summed up in greatly simplified form in Table 5. The most likely buildings to be retrofit are office buildings, hotels, and department stores owned by a large corporation or institutional owner. The least likely to be retrofit is a tenant-metered multi-family building owned by an individual or local partnership.

Why do some owners forego the large potential returns on retrofit? Most individual owners and many partnership owners will not invest in energy retrofits even if they payback in as short a period as two or three years. Ignoring for the moment, the complications of tax considerations and building resale value, a retrofit with a three year payback will generate a very large return on investment over a twenty year life of a retrofit package (a realistic life for such retrofits as insulation, new burners, hot water heat pumps). If fuel escalates in price no faster than inflation, the real rate of return for such a retrofit over 20 years (shown in Box A above) will be 33% per year. Why would owners of buildings forego such opportunities to make money?

The high cost of finance. Much of real estate, including major development companies, is financed by debt not equity. In the terms of the industry, equity is highly leveraged in real estate. A major portion of the financing for purchase of a new or existing building almost always comes from a mortgage. Additional financing for expansion, rehabilitation, repair or retrofit of a building has traditionally come from refinancing a building with a new bigger mortgage at a similar rate of interest as the original mortgage. The recent increase in interest rates has effectively eliminated that option for most building owners. No one is likely to refinance a 7% or

TABLE 5: A Simple Diagram of the General Influence of Building Type and Owner Type on the Prospects For Retrofit

DECREASING LIKELIHOOD →

		Office	Hotel	Retail	Multi-Family Master-Metered	Multi-Family Tenant-Metered
	Owner-Occupants					
DE-CREASING LIKELI-HOOD ↓	Corporation	Likely	Likely	Likely	☒	☒
	Individual	Moderate	Moderate	Moderate	Moderate	Possible
	Condominium	☒	☒	☒	Moderate	Moderate
	Investor-Owners					
DE-CREASING LIKELI-HOOD ↓	Institutional (pension, insurance)	Likely	Likely	Likely	Moderate	Moderate
	Development Company	Moderate	Moderate	Possible	☒	☒
	Partnership	Moderate	Moderate	Possible	Possible	Unlikely
	Individual	Possible	Possible	Unlikely	Possible	Unlikely

NOTE: Crossed out squares mean that there are none or very few examples of such building types owned by these owners

9% or 11% mortgage at 14% to 17% interest in order to get funds for rehabilitation or retrofit. The primary source of funds other than mortgages for building owners is a commercial loan. These are generally eighteen or twenty four month high-interest loans used for financing construction projects. During much of 1980 such loans were only available at variable interest rates two percentage points above the prime rate (which in the summer of 1980 and again in the spring of 1981 reached a high of 20%).

A building owner, unable to reduce his cash flow from a building very much if at all, cannot manage anything but a retrofit with a very fast payback if his only financing option is a short-term high interest loan. Figure 1 illustrates this clearly. At 22%, even a five year loan will cost more the first year than the savings from a three year payback retrofit. A three year loan at 22% will be just about equal to savings from a two year payback retrofit.

The impact of risk. The problems faced by a building owner forced to finance a retrofit with short-term, high-cost debt are made much more serious by the uncertainty of the return on retrofit for his particular building, even though, on the average, the general prospects for retrofit are good. Based on the limited information cited earlier on the accuracy of audits, it is quite likely that savings from a retrofit could be 50% and even 70% below those predicted by an audit. A predicted three year payback retrofit will turn into a six year payback retrofit if actual savings are 50% below the prediction, and it will turn into a ten year payback retrofit if savings are 70% below what is predicted.

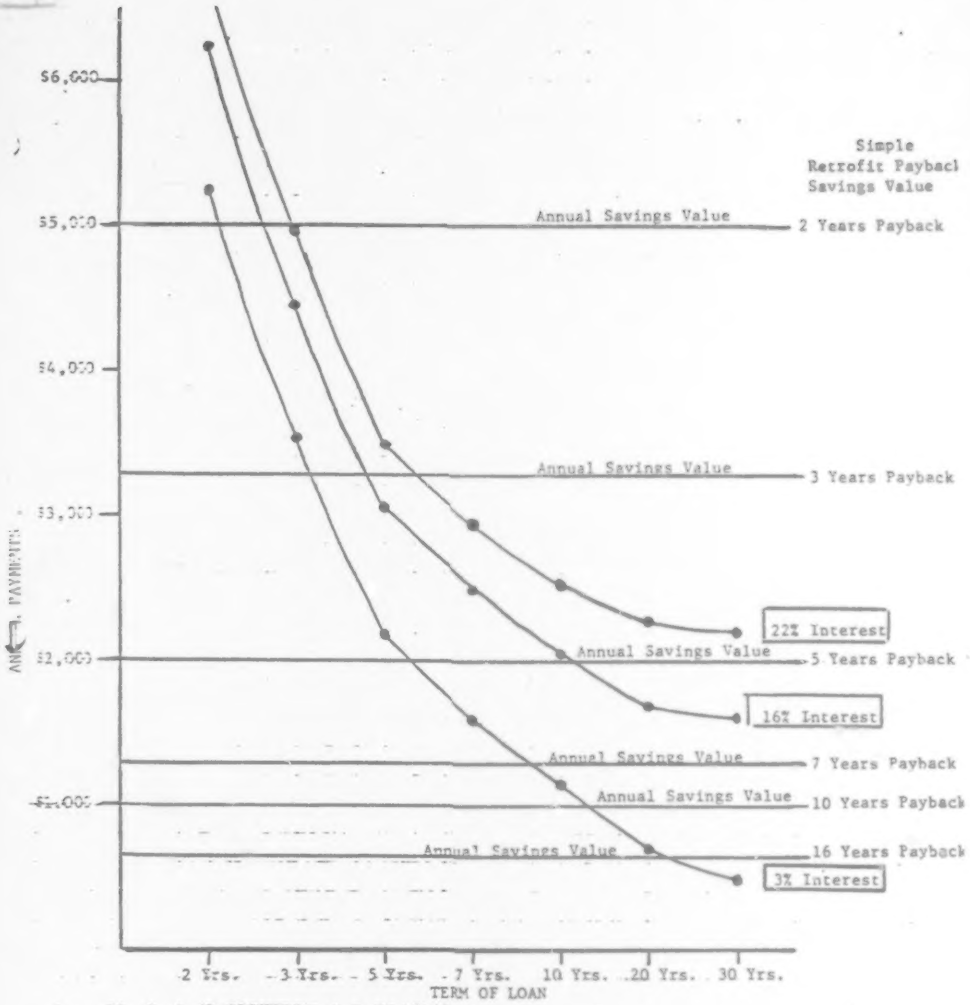


FIGURE 8
ANNUAL PAYMENTS ON A $10,000 LOAN FOR RETROFIT COMPARED TO VALUE
OF FIRST YEAR FUEL SAVINGS UNDER DIFFERENT PAYBACK ASSUMPTIONS

	First Year Savings From a $10,000 Loan	Payback
Predicted by an audit	$3300	3 Years
50% below prediction	$1650	6 Years
70% below prediction	990	10 Years

It would be devastating to many small business owners, or investor-owners of multi-family buildings to carry the debt service for a major retrofit and fail to achieve the energy savings necessary to keep their cash flow up. Yet this is a realistic possibility given both the newness of the retrofit business and the individual nature of building energy performance.

Senator DOMENICI. Thank you very much.

I will yield to Senator Ford.

Senator FORD. I have several questions, but Senator Bradley would like to ask some questions.

Senator DOMENICI. Senator Bradley.

Senator BRADLEY. Thank you, Mr. Chairman.

I find your testimony extremely helpful, and I think very insightful. I happen to agree with a large part of it so maybe that accounts for that feeling.

But I would like to address the question of the amount of money that is presently going to be in S. 1544, $200 million. Do you think that it makes some sense to separate something like low income weatherization and to fund it separately; in other words, fund the total program at a higher level, say $300 million, and separate low income weatherization from the block grant because of its particular characteristics?

Dr. GIBBONS. We surely should be judging the Federal role in terms of Federal or national interest. If in terms of a national interest, weatherization is of key importance because of its equity impact as well as its cost-effectiveness, then separating out the appropriations in that regard could help underscore the program, and assure the fact that those funds would be spent in that direction. As structured now, and as I mentioned in my testimony, the funds could be utilized by the States to go out and drill for oil or to develop coal mines. So I believe, along with my colleagues from the GAO, that with the lack of direction and guidance and with the extraordinary freedom of use of the funds, it is sensible to consider weatherization as a possible specified activity, either within the bill or separately funded.

Senator BRADLEY. Another point relates to the State match. I think probably Senator Ford is interested in this, because I know that Kentucky is affected by it. Some States are on a biennial budget, and suddenly we have a match required to go up to 50 percent. It is going to be pretty difficult for Kentucky, Arkansas, New Hampshire, Virginia, Wyoming, North Carolina, Washington, Ohio, Hawaii and Montana, all of whom have these biennial problems. I wonder if you have thought how we could get around that bind, and if indeed it might be better for the next couple of years to lower the State match so you wouldn't put these States in a bind? New Jersey is not affected, but other States of members are.

Dr. GIBBONS. That problem of additional revenue for the States underscores our point that a more realistic pacing of the transition of responsibility to the States could be extremely important in enabling the momentum of this program to be maintained. In a sudden transition one encounters very difficult problems such as the one you mentioned. So our point is that much more attention needs to be given to the pacing of this transition.

Senator BRADLEY. So flexibility and pacing with regard to transition, with regard to the form, some way of directing the moneys a little more to conservation or low-income weatherization, is that correct?

Dr. GIBBONS. Yes.

Senator BRADLEY. Conservation broadly, but going to weatherization in particular.

Dr. GIBBONS. And especially if low-income weatherization is judged to be the highest priority in terms of national need for both equity and for cost-effective savings.

Senator BRADLEY. As I listened to your testimony, I was struck that it is almost easier to weatherize a home of a low-income person than to provide low income energy assistance.

Dr. GIBBONS. It certainly looks less expensive. It also enables people to become more resilient to energy prices and less dependent on having to rely on the Federal Government for handouts. I remember a friend of mine in Kentucky, Senator Ford, who once said that we must do for ourselves or be done for. I am afraid that with income assistance, if we see that as a principal route to help these people, we are making them more dependent on the Federal Government.

Senator FORD. I am glad you recognize talent.

Senator BRADLEY. Thank you, Mr. Chairman.

Senator DOMENICI. Senator Ford?

Senator FORD. Thank you, Mr. Chairman.

I will continue with the Doctor, and I have some questions for GAO.

Doctor, S. 1544 will permit States to conduct energy research, and, presumably, if this bill is enacted, the administration will use this as the justification, at least in some minds, for cutting the Federal R. & D. effort even further. Would the States do energy research, and how well and on what?

Dr. GIBBONS. Well, that is just the question we have, Senator Ford. Researches in energy, whether it be on advanced fusion, plasma, or advanced techniques for making super insulation, or other long-term highly technical research have a common property. That is, they are a national if not an international, concern. To try to get independent efforts mounted and organized and directed from the State level in these areas seems silly to me.

Senator FORD. Well, you underscored "silly." As I have read some of the payments for fuel bills under the low income energy assistance, which you refer to, and which you state that weatherization of low income would pay more in the long run than the assistance for paying the fuel bills—one State didn't know how to get to it so they just sent out all their checks on SSI recipients, so everybody drawing SSI, they may be renting and their rent includes light, water, heat, and so forth, so they got a windfall check which, I don't know, maybe they got the income applied to their fuel bills. So I am inclined to agree with you that we could get more for our dollar.

You call for a 2 to 3 year transition in the period of block grants, and I have been saying all along that there is no orderly transition of responsibility to the States or the local communities as it relates to the transmittal of all this responsibility from the Federal Government to State and local governments. They are not able to absorb this shock. It is the greatest transfer of responsibility in the history of this country, and I am very concerned that the locals will be able to adjust to it.

The biennial budget, you call the legislature at the end of the session and try to adjust it. Some States' constitution says you cannot raise your taxes. In my State you can only increase your property tax by 4 percent annually—so we are limited. I am not sure you are going to find the legislature anxious to get back to the capital city to pass a bill to increase taxes.

Do you think that amending the existing statutes to improve the flexibility of existing programs—we should instead move gradually to the block grant approach, and how can we move gradually to the block grant approach?

Dr. GIBBONS. Let me ask Dr. Rowberg to respond to that.

Dr. ROWBERG. As far as moving gradually, the 2 to 3 year period would give time to take care of the biannual appropriations process of some States. It would also allow them to postpone having to deal with this fund transfer while they are dealing with others. The period of time is not precise, however. It may be longer, but I would think that a 2 to 3 year period to be minimum. I don't know whether or not we can say precisely at this point how you would manage it. I think some of the things you would have to consider are the allowance for development of the technical capabilities within the State, the development of plans that will allow meeting the goals and objectives of the legislation—and that these plans were satisfactorily agreed upon by the Congress,—and to make sure that the States would be able to carry out the objectives. For example, in the case that weatherization, would be a major component of the bill, it is important to make sure that the States had the capability to carry that out once the transfer took place. I can't speak to the specifics of the management, but the objectives of the transition would be, I think, in those areas.

Dr. GIBBONS. I might add to that that having worked at the State and local level on many of these energy programs when I was in Tennessee, there are ways to simplify the paperwork involved in administering these programs. In the spirit of S. 1544, there could be an annual update of States' plans, and a reporting back of the progress made. It is important not only to be accountable to the Federal grantor of funds, but also as a way of sharing information among the States about both successes and failures.

To phase in the State budgetary participation would enable some State legislatures to, I believe, more gracefully handle the increased financial burden on them and to make this an explicit multiyear program that matches in letter as well as in spirit the reality of a multidecade nature of retrofiting buildings. If one can anticipate multiyear funding one can mount a program at the State level, employ and train people on a basis that gives continuity and program efficiency. So those are elements, it seems to me, that are all part of that so-called pacing of the process.

Senator FORD. Let's get to the GAO.

Mr. Duffus, GAO has not taken a position approving or disapproving any of the bills on block grants that you have examined, is that correct?

Mr. DUFFUS. That is correct, Senator Ford.

Senator FORD. Why is that?

Mr. DUFFUS. As I indicated in my statement, we are not against the block grant concept. Our work has shown that in the categorical grant programs there is some burden, there is a proliferation, and the block grant concept in itself can be useful. We have no position to say that the block grant concept won't work, on that it will be worse or better than the categorical grants. But in terms of blocking funds to States, there are some considerations that we believe need to be considered by the Congress such as deciding whether or not it wants to turn funds over to the States without any requirements, whether or not it wants national objectives to be specified, and whether or not it wants the States to have complete flexibility.

Senator FORD. What is the result of creating a State block grant with no accountability requirement? In your experience, what tends to happen? Is such a State block grant ever justified, and, if so, when?

Mr. DUFFUS. Most certainly, a block grant program provides State and local governments more flexibility than they have under categorical programs, and in terms of justification I would go back to say that it is justified if the Congress feels that block grants are the way to go. We don't have a position that block grants are the best way to achieve an end. There has to be some decision as to what end is to be achieved, and block grants could get you there as well as categorical grants. But it is the way they are designed that I think is going to decide whether the ends can be effectively achieved.

Senator FORD. You have no recommendations as to how they are designed?

Mr. DUFFUS. We pointed out things in the areas of accountability, formulas for fund distribution and matching or maintenance of effort requirements that we think should be taken into consideration in designing block grant programs.

Senator FORD. You are beginning to talk like an economist. You lay them all end to end and they are in every direction.

Mr. DUFFUS. Senator Ford, I believe accountability is a prime consideration in the design of a block grant program.

Senator FORD. With no accountability requirements what tends to happen? I asked you that question.

Mr. DUFFUS. I guess the worst case would be that States would have the flexibility to spend funds without any accountability and you would not know what the Federal funds are accomplishing and what they are being spent for. That would be the worst case. S. 1544 does specify use of the funds, but they are rather general. For example, funds can be spent for energy conservation and there are a lot of things that could be done, I suspect, in the way of spending funds to conserve energy that may not be effective.

Senator **Ford**. In your report of December 1980 you recommend that Congress use matching funding requirements more sparingly. Are the matching requirements of S. 1544 more onerous than the other proposals that you have examined, and what problems are created by this matching requirement?

Mr. **Duffus**. Senator Ford, I would like to ask Mr. Endy to respond to that. He did work on that report.

Mr. **Endy**. Senator Ford, our basic message in that report was that matching can accomplish certain Federal objectives. It depends on what that objective is. In terms of the proposed block grant program, if we want all States and all localities to conserve energy to meet the objectives of the legislation, matching could very well frustrate that objective, because they may not have the resources in order to meet the match. And that is basically what we were saying.

Senator **Ford**. I think we have two problems, one they may not have the resources and, two, they may not have the legislation to match under this bill if it drops in in the middle.

Mr. **Endy**. That could be, sir, although many States are adopting interim measures to deal with that problem. They are setting up interim committees to make these decisions for the State legislature.

Senator **Ford**. If you were asked to suggest an amendment to S. 1544 to improve the accountability, what would you suggest?

Mr. **Endy**. One thing we would say is that maintenance of effort requirements can at least insure that Federal funds will not, in effect, supplant State and local funds. If there is no maintenance of effort requirement that a State has to continue contributing the same amount that it did either in the past 3 years or some other time period, they can, in effect, take the Federal funds and use them for energy conservation, but that then frees up State and local funds to use for something else. So we haven't accomplished anything other than general fiscal relief when we have no maintenance of effort requirement.

Senator **Ford**. Mr. Chairman, I have a statement and a request of the members from GAO who are here as witnesses this morning. I know that you all are not the GAO experts on impoundment of appropriated funds. However, so long as you are here, I want you to take back to the Comptroller General a message and a request for a formal opinion. Yesterday the minority staff of the committee and the Interior Appropriations Subcommittee met with DOE budget personnel to discuss the current personnel and funding situation for the DOE energy conservation program. As a result of that discussion, the staff believed that DOE is impounding energy conservation funds.

One, first, although $67 million was deferred by the Congress from fiscal year 1981 to fiscal year 1982, none of that money is being made available to DOE. None of it. To support that statement, I am giving you a copy this morning of an internal DOE memo from the DOE Controller on congressional justifications, fiscal year 1982 budget amendment, sent to secretarial officers, DOE staff officers, the Chairman of FERC, which states, "In addition, fiscal year 1981 deferrals carried into fiscal year 1982 will be withdrawn from OMB and used to offset new budget authority in fiscal year 1982. Justification materials should not reflect use of fiscal year 1981 deferrals to finance fiscal year 1982 requirements."

I am also including David Stockman's memo to the heads of executive departments and establishments, on apportionment under continuing resolution. "The funds that are being made available for conservation programs are being apportioned to DOE on the basis of the President's revised budget request and not on the basis of the continuing resolution passed by Congress." It is as if OMB is ignoring the fact that Congress ever passed a continuing resolution.

And third, there is a serious question as to whether funds in the industrial conservation program are being transferred to other programs without seeking congressional approval of the reprograming.

I hope you gentlemen, and particularly you, Mr. Duffus, will transmit this message to the Comptroller General working with our staff and have him respond to my request.

I just want to make two other quick statements or quotes from the U.S. Department of Energy memorandum, and I have a copy here, and I am giving that to you. It says, "In addition, fiscal year 1981 deferrals carried into fiscal year 1982 will be withdrawn by OMB and used to offset new budgetary authority in fiscal 1982. This offset will be accomplished by the Budget Office as a bottom line entry for every appropriation. Justification materials should not reflect—should not reflect use of fiscal year 1981 deferrals to finance fiscal year 1982 requirements."

And I want to read you some Nixonese from Mr. Stockman, and I quote: "The Congress has stated on many occasions that rates of operation of the continuing resolutions are to be interpreted as ceilings and not as mandatory spending levels. The Congress and the President expects departments and agencies to avoid the obligation of funds under the continuing resolution at rates that would impinge on discretionary decisions otherwise available to the Congress while the Congress is considering its options, including the President's budget request and its own spending targets established in the first budget resolution for fiscal year 1982."

[The material referred to by Senator Ford follows:]

DOE F 1325.8
(7-79)

U.S. DEPARTMENT OF ENERGY

memorandum

DATE OCT 1 1981

REPLY TO ATTN OF MA-822.3

SUBJECT Congressional Justifications - Fiscal Year 1982 Budget Amendment

TO Secretarial Officers
DOE Staff Officers
Chairman, FERC

This memorandum provides guidance and instructions for the preparation of Congressional justifications for the fiscal year 1982 budget amendment.

Congress is delaying final action on our fiscal year 1982 appropriation legislation pending receipt of the President's revisions. Accordingly, we anticipate that OMB will transmit the budget amendments during the early part of October. This will be closely followed with the Department's justification materials. To accomplish this, two copies of Congressional justifications on the amended fiscal year 1982 request are due in the Office of Budget by noon, October 7.

Guidance on the preparation of these justification materials is contained in Chapter I-F of the draft budget manual. For your convenience the formats are attached to this memorandum. All tabular and narrative material should be prepared in the fiscal year 1982 budget structure now pending before Congress. Fiscal year 1982 comparability transfers made during formulation of the fiscal year 1983 budget should not be made in this presentation. All justification materials must tie to the OMB allowance for fiscal year 1982. To the extent that Departmental reductions in the various activities are greater than the OMB mark, separate justifications will be prepared at a later date. The additional reductions to fiscal year 1982 funding will likely be proposed as rescissions at that time. In addition, fiscal year 1981 deferrals carried into fiscal year 1982 will be withdrawn by OMB and used to offset new budget authority in fiscal year 1982. This offset will be accomplished by the Budget Office as a bottom line entry for each appropriation. Justification materials should not reflect use of fiscal year 1981 deferrals to finance fiscal year 1982 requirements. For example: a decision unit for which the fiscal year 1982 March budget proposed a $100 million funding level, and for which a fiscal year 1981 deferral of $10 million existed, would be justified to reflect a program of $100 million less $12 million (12%) or $88 million.

The justification will consist of a lead table by decision unit, specifying both operating expenses and plant and capital equipment, where appropriate, and narrative material. The lead table is prepared for each decision unit and should spread the decision unit to a lower level of detail, to specify where revisions are being made. Narrative statements should follow the lead table for each decision unit. These statements should be prepared in the attached formats, should be concise, and should focus on what activities will change as a result of the amendment. Statements as to the overall impact of the changes should be positive and support the Administration's position on the proposed reductions.

The Office of Budget will prepare appropriation summary tables and revised appropriation language for inclusion in the justification packages. These summary tables will be prepared for each appropriation to the decision unit level of detail. Offsets to new obligational authority requirements through application of fiscal year 1981 deferrals will be shown on this table.

Justifications submitted should be typed on good quality bond paper with narrative material being single spaced. Offset mats should not be used. Questions concerning this memorandum should be addressed to the Budget Formulation Branch on 252-4016.

P. Marshall Ryan
Controller

Attachments

DEPARTMENT OF ENERGY
FY 1982 BUDGET AMENDMENT
SUMMARY TABLE
(BUDGET AUTHORITY IN THOUSANDS)
ENERGY SUPPLY RESEARCH AND DEVELOPMENT

	PENDING REQUEST	PROPOSED AMENDMENT	REVISED REQUEST
Magnetic Fusion			
Operating Expenses			
Confinement Systems	$ 85,000	$ 2,500	$ 87,000
Program Direction	3,000	200	3,700
Other Magnetic Fusion	162,000	---	162,000
Total, Operating Expenses	250,000	2,700	252,700
Plant and Capital Equipment			
Confinement Systems			
Capital Equipment	30,000	---	30,000
81-MF-1	6,000	1,200	7,200
Other Magnetic Fusion	114,000	---	114,000
Total, Plant and Capital Equipment	150,000	1,200	151,200
Total, Magnetic Fusion	$400,000	$ 3,900	$403,900

DEPARTMENT OF ENERGY
(DECISION UNIT TITLE)

FY 1982 NARRATIVE JUSTIFICATION

Revised Request Provides for:

- o Describe what will be accomplished within this activity at this level of funding.
- o Statements should be positive and include dollar amounts wherever possible ($12.2M).

Changes from the March request:

- o Describe activities which were included in the March budget which will not be funded within the revised request. Include dollar amounts wherever possible ($-26.5M).
- o Statements should be simple and factual.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

October 7, 1981

BULLETIN NO. 82-1

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Apportionment Under Continuing Resolutions

1. Purpose. This Bulletin provides instructions for the preparation and submission of requests for apportionments for amounts appropriated under a continuing resolution or a series of resolutions for fiscal year 1982. This Bulletin also provides guidance for the withholding of amounts otherwise available under the 1982 Continuing Resolution (P.L. 97-51) and the development of associated deferrals under the Impoundment Control Act of 1974.

2. Authority and coverage. This Bulletin is issued pursuant to the Antideficiency Act, section 3679 of the Revised Statutes, as amended (31 U.S.C. 665) and applies to amounts provided in P.L. 97-51 and any extensions of continuing resolution authority provided subsequently in 1982. Except as amended by this Bulletin, instructions on budget execution provided in OMB Circular No. A-34 will continue to apply.

3. Policy. The policy with respect to operations pursuant to this or any other continuing resolution is to provide for the continued operation of the government in a manner that does not preclude Congressional options in formulating final appropriations actions for the fiscal year. The Congress has stated on many occasions that rates of operation under continuing resolutions are to be interpreted as ceilings and not as mandatory spending levels. The Congress and the President expect departments and agencies to avoid the obligation of funds under continuing resolutions at rates that would impinge on discretionary decisions otherwise available to the Congress while the Congress is considering its options, including the President's budget request and its own spending targets established in the first concurrent budget resolution for fiscal year 1982.

This expectation by the Congress was reaffirmed explicitly in Senate floor discussion and the House report on the 1982 Continuing Resolution.

4. Background. The use of continuing resolutions to cover more programs and for longer periods of time requires formal procedures for the apportionment of amounts made available in this manner. The funding levels provided by P.L. 97-51 exceed the level of the President's revised budget request in many cases. In other than exceptional cases, where the levels allowed are excessive, a deferral will be reported to the Congress and the associated funds will be reserved under the Antideficiency Act or the Impoundment Control Act. Supplemental guidance on extensions of the 1982 continuing resolution will be issued later, as necessary.

a. Amounts appropriated by a continuing resolution may be provided:

-- as specified amounts, i.e., in the form of (1) a regular appropriation amount, or (2) a specified program level (e.g., as approved in the House or Senate version of an appropriation bill); or

-- at rate for operations not exceeding the "current rate." Generally, in accordance with the Comptroller General's decision of May 14, 1979, the annual amount provided has been defined as equivalent to the total funds that were available for obligation for a program during the previous fiscal year.

b. Appropriations and funds made available by this continuing resolution are available for different periods of time. Those for Executive Branch departments and agencies, which are subject to the provisions of section 102 of the continuing resolution, shall remain available until:

-- enactment into law of an appropriation for any project or activity provided for in the joint resolution, or

-- enactment of the applicable appropriation act by both Houses without any provision for such project or activity, or

-- November 20, 1981, whichever first occurs.

5. Policies on apportionment requirements, withholdings pursuant to the Antideficiency Act and the Impoundment Control Act, and warrant requests.

a. Bases for apportionment. Under the following circumstances, agencies will request a formal apportionment (i.e., will submit to OMB an Apportionment and Reapportionment Schedule (S.F. 132)) for appropriations or funds that are subject to the provisions of section 102 whenever such amounts would be apportioned under a regular appropriation:

(1) when--in the agency's view--the appropriations realized would exceed 14 percent of the annual amount provided by P.L. 97-51 (see paragraph 5(b)(2));

(2) when an amount is to be deferred (see paragraph 5(c)); or

(3) when otherwise required by OMB.

In all other cases, the amounts made available by P.L. 97-51 will be considered to be apportioned automatically.

b. Determination of appropriations realized under P.L. 97-51.

(1) Where appropriations are not subject to section 102, the amount of appropriations realized will be ascertained from the language of P.L. 97-51.

(2) Where appropriations are subject to section 102, the appropriations realized will be determined by the agency. Unless an agency can justify that the appropriation realized exceeds 14 percent of the annual amount provided by the resolution, that percentage of the annual amount will be deemed to be realized. When apportionment is required under the conditions described above (paragraph 5(a)), the amount of appropriations realized will be listed as line 1A of the Apportionment and Reapportionment Schedule (S.F. 132). If an agency determines that an amount in excess of 14 percent has been realized, the agency will submit to OMB both an S.F. 132 and a written justification in support of the higher figure. This justification will demonstrate that an amount in excess of the above percentage is appropriate. Examples of such a justification could be that obligation rates are seasonal and occurred in like periods of prior years, that major administrative or personnel problems would be caused, or that serious disruption of an agency's mission would result.

c. Withholdings pursuant to the Antideficiency Act and the Impoundment Control Act. Obligation rates shall be maintained at a level that will preserve the options of the Congress to achieve the President's revised (September) request. Amounts requested for apportionment on line 8 of the S.F. 132 will not exceed 14 percent of the President's revised budget request for 1982 unless an agency justification for a higher amount accompanies the S.F. 132. Where line 1A is greater than the corresponding figure based on the President's revised request, the difference will be listed on line 10 as deferred.

Relief will be considered by OMB if strict application of this rule would, in the opinion of the agency head, conflict with the objective of providing for the operation of programs in a manner that would reserve the options of the Congress during the period of the continuing resolution and would require a significant number of reductions in force. Relief will be considered only to the extent that the difference between the rate established by the continuing resolution and the President's revised request cannot be absorbed through:

- -- a freeze on hiring for the activities financed by the account,
- -- reallocation of funds from areas other than personnel compensation and benefits (e.g., travel, consultants, supplies and materials, equipment), and
- -- other actions that do not require the initiation of reductions in force during the period of the continuing resolution.

Special consideration will be given to accounts in which personnel compensation and benefits account for 70 percent or more of total obligations.

Specifically, with respect to personnel actions:

- -- Reductions in force should not be made below those required to achieve the spending rates of the continuing resolution.
- -- Reductions in force necessary to achieve the following objectives may be initiated:
    - . program reductions implied by Congressional action to date, and
    - . efficiencies in program operations (e.g., reduction of the production of audiovisual products).
- -- Reductions in force may also be considered to achieve the Administration's employment targets.

Should reductions in force be considered, the Office of Personnel Management should be consulted prior to the initiation of any agency action to insure compliance with pertinent regulations.

If a project or activity was zero-funded in the September budget revision but was provided with funding via the continuing resolution, the project or activity is to be maintained for the duration of the resolution. However, the total funding for the account that funds the project or activity is to be limited to the level of the President's revised request. Zero-funded accounts will be considered on an individual basis.

d. Warrant requests. Agency requests for warrant from Treasury should be consistent with the agency determinations of appropriations realized, as modified by OMB. The policy reductions associated with deferrals are not to be considered in the warranting process.

e. Should the regular appropriation be enacted during the period covered by a continuing resolution, the department or agency will request reapportionment in accordance with the instructions in OMB Circular No. A-34.

6. Agency responsibilities. Agencies provided with appropriations or funds made available and authority granted pursuant to a continuing resolution will:

a. Make a determination of the appropriations and funds made available and authority granted by the resolution.

b. Submit apportionment requests and associated deferral reports required by this Bulletin to OMB not later than Wednesday, October 14, 1981.

c. Provide a copy of each approved apportionment request (S.F. 132) to the Department of the Treasury as soon as possible after approval by OMB.

7. OMB Responsibilities. OMB will act on each apportionment request submitted pursuant to the requirements of this Bulletin.

8. Obligation of funds prior to approval of formal apportionment by OMB.

Agencies may obligate funds necessary to continue normal operations prior to OMB approval of initial apportionments made under a continuing resolution but only up to the amount that would have been apportioned following the guidelines in paragraph 5 above.

If an agency obligates amounts in excess of the amount approved by OMB, the head of the agency will furnish to the President, through the Director of OMB, and to the Congress a report on the Antideficiency Act violation in the form required by section 71 of OMB Circular No. A-34.

9. Instructions in OMB Circular No. A-34. The requirements under section 5 of this Bulletin supersede the instructions in OMB Circular No. A-34. Specifically:

-- the amounts requested for warranting pursuant to a continuing resolution will be included on line 1A of the "Apportionment and Reapportionment Schedule" (S.F. 132); and

-- the unobligated balances of amounts warranted by Treasury and apportioned under a continuing resolution will be included on lines 9.a. or 9.b. of the "Report on Budget Execution" (S.F. 133), and not on line 9.c.

10. Timing. Agencies will furnish OMB with the apportionment requests and associated deferral reports not later than Wednesday, October 14, 1981.

11. Information Contact. For further information, agencies should contact their OMB examiner.

12. Sunset Date. This Bulletin expires November 20, 1981.

David A. Stockman

David A. Stockman
Director

Senator **Ford**. I have used this word before—it is a cute way of moving funds from one area to the other without the approval of the appropriate committee chairman or the Congress, and I think we are seeing more and more of this all the time, particularly in the energy field.

This is an energy committee. I am a part of it, and I expected to do my 1-19 or 1-20 of whatever is necessary to see that those funds that we as a committee and we as a Congress gave direction to and that direction is not being carried out. I would appreciate you returning with that request to me as soon as possible.

Mr. **Duffus**. We will take that back and would be happy to work with your staff in getting a resolution.

Senator **Ford**. Thank you.

Thank you, Mr. Chairman.

Senator **Domenici**. Thank you, Senator. I would tell you that if your last quote is Nixonese——

Senator **Ford**. A rose by another name shouldn't be so sweet.

Senator Domenici. The only problem with it is that it is contained in the House report on the continuing resolution and contained on the floor of the Senate in dialog from Senator Mark Hatfield, so maybe they are all quoting Nixon. But I think the Congress is going to have to have an answer on the deferral situation that Mr. Stockman has put out in his bulletin, and I am sure that GAO will respond. It will be of interest to Senator Ford and, I am sure, to many Senators, so I encourage that it be done as quickly as possible.

Senator **Ford**. Mr. Chairman, I haven't been here as long as you have and I haven't handled the budget as you have, but it is my understanding the Comptroller General has to say whether it is impoundment or not.

Senator **Domenici**. That is correct. He has rendered a number of official opinions with reference to it, too, heretofore, which I am sure——

Senator **Ford**. As it relates to the deferrals of 1981 to 1982, can any amount be transferred over—what is it $250,000, or 10 percent, without the approval of the committee chairman or, in some cases, without the approval of the Congress?

Senator **Domenici**. Well——

Senator **Ford**. Reprograming?

Senator **Domenici**. Senator, if that is what the statute says. I haven't read that specific provision recently. That is what it ought to be on impoundments. There is a lot of language in the new Budget Act where we have covered impoundments and deferrals.

Senator **Ford**. I objected to the last administration to the transferring of funds from one program to another, and at the time the chairman of the Appropriations Committee had to approve the transfer of funds within an agency to another program, and I objected to it then and I will again, I guess.

Senator **Domenici**. Well, I share your concern that we don't want to be accomplishing the goals in a manner that is not consistent with the law, regardless of whether it benefits everybody's idea of what the law is to be.

Do you have any way of knowing, based upon your investigations out in the States, first, how many States have an energy department or, second, within their management scheme who is charged with doing some of the kinds of things that might be blocked here?

Mr. DUFFUS. Yes. We have done work on State energy conservation programs, and I think what we have is a mixed bag. Some of the bigger and more active States have better and more effective State energy office. While some other States may have energy office, they are way down in the organizational ladder, and are not given the sense of priority that maybe energy would call for.

Senator DOMENICI. Would you submit a list to us when you get back?

Mr. DUFFUS. We could submit something for the record.

Senator DOMENICI. Try to generalize those that are most alike and give us some specifics on how they vary within the States.

Mr. DUFFUS. I believe we can provide something for the record along those lines.

Senator DOMENICI. It is obvious to me that the maintenance of effort notion that somebody discussed here is kind of a two-edged sword. It is good in many respects, but it has real management problems too when you get out in the States. We have tried that is some of the education programs 'It limits flexibility greatly. It really assumes that they don't have a modified approach to using their money.

Do you know, GAO, how much money the States are already spending in the field that we are speaking of here? Is that available? There are obviously some doing more than others. There are already some programs that they must match. I think it would be of interest to us—Senator Ford indicates a genuine concern—where would they find the money on a hurried up basis? I think there is substantial money being spent in the area in many States. Do we have information on that?

Mr. DUFFUS. I don't think we have information for all the States, but based on the work we have done we have some information on what States are spending. I think it is fair to say generally it is not very much.

Senator DOMENICI. Can you reduce your generalization to something that would be helpful to us.

Mr. DUFFUS. I think we can.

Senator FORD. Mr. Chairman, could I add a little bit to what your request is?

Senator DOMENICI. Surely.

Senator FORD. I have alluded to a problem of transferring funds from one program to the other. States may have the same type of problem, and could you also, when you submit your request from the chairman, say how much money is being generated by Federal programs? If they have a program on conservation or low income, how much is the State putting into that based on the generation of the Federal program? And is it feasible for them to then shift in the middle of a biennium that money, say from low income energy rate, low income rate?

Mr. DUFFUS. I don't think we have the information that you suggest, Senator Ford.

Senator FORD. You don't, that is fine. But I just think some way or another there is money being generated in the State to match and to be spent for certain areas. If we now give them a block grant, do they have the ability to transfer that money? Is that sufficient money to be used for a match?

Mr. **Duffus**. I would like to look at what we have and then work with your staff and provide something——

[Subsequent to the hearing Mr. Duffus supplied the following:]

ORGANIZATION OF STATE ENERGY OFFICES

Before being granted funds under the State Energy Conservation Program (SECP), States were required to either designate an existing agency or create a new agency to administer the funds.

In its three reviews of the SECP, GAO reviewed SECP implementation in 21 States. In 13 States, the energy offices were established by legislation or executive mandate as independent State agencies. In eight States, the energy offices were established by executive mandate as a division of an existing State agency. The following table summarizes this data by State.

Energy Office established as 1/

An independent State agency	A division of an existing State agency
California	Connecticut
Colorado	Hawaii
Idaho	Indiana
Kentucky	Louisiana
Massachusetts	Maryland
Nebraska	Michigan
New Jersey	Missouri
New York	North Carolina
North Dakota	
Ohio	
Pennsylvania	
Texas	
Washington	

The inclusion of the energy office in an existing State agency could isolate the energy conservation staff from direct contact with the Governor, and could result in a lower priority for energy conservation as energy conservation may not be a priority of the existing State agency. For example, in several States the energy offices were located in existing State agencies whose priorities were either energy production or economic development.

The size and scope of authority of State energy offices varied considerably. In a few States, the energy offices had staffs ranging from 100 to 200 persons, and were responsible for planning and administering all energy programs including, in addition to

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1/GAO performed three reviews of the SECP over the period from 1977 through 1980. The status of each State's energy office organization in this table is as of the time that GAO reviewed each State's program.

the SECP, other Federal energy conservation programs such as the Energy Extension Service, the Energy Conservation Program for Schools and Hospitals, the Low-Income Weatherization Program, and the Residential Conservation Service Program. In contrast, the energy offices in some States had a minimal amount of staff and served primarily as coordinating offices for the SECP with responsibility for execution of program measures delegated to other State agencies or contracted out.

DOE ESTIMATES OF PERCENTAGE OF STATE ENERGY OFFICE BUDGET WHICH IS FEDERALLY FUNDED 1/

DOE Region I

Massachusetts	68%
Vermont	76%
New Hampshire	75%
Rhode Island	80%
Maine	90%
Connecticut	63%

DOE Region II

New Jersey	75%
New York	50%
Puerto Rico	95%
Virgin Islands	93%

DOE Region III

Delaware	73%
D.C.	85%
Maryland	88%
Pennsylvania	90%
Virginia	74%
West Virginia	96%

DOE Region IV

Alabama	90%
Florida	76%
Georgia	86%
Kentucky	80%
Mississippi	95%
North Carolina	81%
South Carolina	63%
Tennessee	73%

DOE Region V

Illinois	80%
Indiana	90%
Michigan	78%
Minnesota	75%
Ohio	87%
Wisconsin	83%

DOE Region VI

Arkansas	88%
Louisiana	74%
New Mexico	79%
Oklahoma	74%
Texas	81%

DOE Region VII

Iowa	73%
Kansas	79%
Missouri	80%
Nebraska	78%

DOE Region VIII

Colorado	80%
Montana	79%
North Dakota	89%
South Dakota	84%
Utah	88%
Wyoming	90%

DOE Region IX

American Samoa	95%
Arizona	75%
California	25%
Guam	90%
Nevada	87%
Hawaii	89%

DOE Region X

Alaska	75%
Idaho	96%
Oregon	78%
Washington	91%

1/This information was obtained from an internal DOE document and represents the best assessment of DOE's regional State and local program managers.

Senator **Domenici**. I would appreciate that. You may find that some gaps can be filled just between the two of you. The Energy Committee staff and you can get a hold of the National Governors' Association. They may have some numbers from the field.

Let me ask you a little bit about block grants. I know you are not supposed to come up here—and I am satisfied that you are trying to walk that fine line. We are policymakers on whether block grants work or don't work, whether they are better than categoricals, but you seemed to indicate that block grants per se don't have a high degree of accountability or are per se bad. Did you really mean that? What about revenue sharing? Have you found in all honesty that that $4 billion, contrasted with $4 billion in a whole batch of categoricals, is being spent more unwisely based on your judgments than before?

Mr. **Duffus**. I will refer to Mr. Endy again in the general revenue sharing area.

Senator **Domenici**. I don't want a big discussion, but it appears to me that there are some general block grants where you trust the local politician who has to get reelected and that that sometimes is a formidable accounting mechanism that happens to run the Nation, it seems to me.

Mr. **Endy**. We won't say it was spent more unwisely. We are really saying it is a matter of congressional objectives you want to achieve. If you want States to make decisions and become more accountable directly by themselves to their constuencies, block grants would do that. We wouldn't say however, that there is a minimum level of accountability that should be associated with block grants. We would point out various things that could be included in the block grants depending on the type of accountability you want.

In block grants, the real key difference between them and categoricals; whether they are narrow categoricals or consolidated categoricals, which we have some of those too; is whether there is a range of activities that the Congress feels are proper for funding, and we want to allow the States to make those choices themselves as opposed to saying "X" dollars for "X" purposes have to be allocated.

Senator **Domenici**. Just a couple more questions. I haven't had a chance to read GAO's report on these programs contemplated for consolidation. Low income energy assistance by way of helping poor people make their homes more energy conservation oriented—if you read the report correctly, just a summary of it, we haven't done a very good job if we are running it nationally with a format, your criticism is pretty strong on that program, that we haven't developed a technique of picking the houses of the poor that qualify in such a way that we are apt to get maximum conservation for the dollar. That is true, is it not?

Mr. **Duffus**. That is true, Senator.

Senator **Domenici**. Do you have any reason to believe the States could do worse?

Mr. **Duffus**. No reason to believe they would do better or worse.

Senator **Domenici**. I happen to know about that. Administrators have a certain amount of money and they have 500 people that really need it. I have seen where they pick one that is the worst because they are trying to keep someone from freezing. I don't know whether I would want to make the decision based on cost benefit there. I might put it in that house for warmth. We haven't been able to develop any real kind of determiner there. We might put windows and insulation there and that is the quota. That is not very energy efficient. We don't know whether the States will do better or worse, is that right?

Mr. **Duffus**. Yes.

Senator **Domenici**. Do you have any ideas on what we might do there?

Mr. **Duffus**. We should be issuing shortly another report that updates our earlier weatherization report. We found that while there has been some improvement in prioritizing homes and measuring energy saving, problems still exist, and there needs to be still more done.

Senator **Domenici**. I hope you will also find out whether the work promised to be done is being done. There is a tremendous vulnerability. Poor people are so glad to get help, and contractors will do this kind of work, whether they are subs or through governmental action, and there is an awful lot of abuse. They don't build what they say they are going to build. I hope you look at that in terms of whether you are getting your money's worth when you have this kind of program.

My last question has to do with energy research and development. The draft permits energy R. & D. You recommend that it not be included, or energy development, which you talk about. Do we know how much States are doing in energy R. & D. now? Are they spending any significant amount of money?

Dr. **Gibbons**. It depends on how you define R. & D. Some States are. For instance, the State of Florida, the State of California, and the State of New York are to some extent. There have been some attempts in the State of Tennessee. It is a highly variable situation across the States as is the condition of the energy offices, as I pointed out.

Senator **Domenici**. In terms of enhanced supply, which you quite properly indicate could be permitted if this bill is as flexible as it is, are many States involved in spending their own money to develop energy resources?

Dr. **Gibbons**. I know that, for example, in the State of Tennesee, where I resided for 20 years, the State has considered allocating resources toward such things as energy supply storage depots, the possibility of opening State-owned coal mines on State land, subsidizing the development of natural gas systems in the Cumberlands, and even funding R. & D. research, which, it seems to me, is certainly a national issue.

My concern is that the attractiveness of what I sometimes call "Gee Whiz Technology" is an appealing decision for people to make with research and development funds. If the Federal Government in this bill is attempting to leverage the rate and extent to which we become more energy efficient, then the purposes for the bill should reflect that intent. Our concern is that by opening it up so broadly one is providing a temptation to go beyond that intent. If in fact the intent is broader, then surely it is OK.

Senator **Ford**. Mr. Chairman, I might add to that, Kentucky, a next door neighbor to Tennessee, and I am sorry he let that slip his mind, we put $66 million State dollars, no Federal dollars, into research for new sources of energy. We find that there are research projects in solar energy, others. We have one now that they are developing a solar energy program for the YMCA in a city, but that project received $50,000 from the State to go ahead and follow through on a solar energy project in that bill on the basis that that would be available to the general public once the project is determined to be a success or a failure. Our main project, however, is being placed in the research lab, Spindletop Research, and it is a quest for new sources of energy, primarily from coal, and also some reclamation research as it relates to reclaiming basically surface mines. So there are States that are doing some expenditure of funds in this area.

Dr. GIBBONS. My apology to Senator Ford. Kentucky is indeed an outstanding State in support of energy development.

Senator DOMENICI. One of you commented about a way to get through the transition would be to have a multiyear annualized guaranteed appropriation. I hope you understand that there is a genuine concern up here—and I think it is very broad and very wise—about adding to the existing entitlement base in this country. I think if we were to do what you suggested and literally say for 3 years *x* hundred million a year, I think we would be creating an entitlement, and I don't think we are going to do more of that. I think we are going to do less. The Senator is on Appropriations, are you not?

Senator FORD. No.

Senator DOMENICI. I think they are genuinely concerned that the appropriation process loses more and more control over the budget of the United States the more we build in mandated expenditures. I don't think we can look for that as a solution to this transition. I don't think we will get through up here with it.

Dr. GIBBONS. Mr. Chairman, I purposely did not use the word "guaranteed," but rather intended to imply that the job at hand of retrofiting buildings, even at the rate we are currently doing it, is going to require 20 to 30 years. Any program instituted to achieve that goal needs to be at least constructed in a way that is inherently multiyear. This need not conflict with making an appropriate decision year by year.

Senator DOMENICI. Let me ask GAO, frequently in legislation around here we set as an outside goal—an example that comes to mind is the water sewer grant program—where we establish some general base of need against which we measure the size of the program. We haven't done that in any of these programs. It is obviously very difficult to do so. Do you know whether we have any information as to how big the problem of low income housing needs for conservation money is?

Mr. DUFFUS. I believe that is one of the problems that we found at the State level. There is really a problem with the data in terms of how many homes need to be weatherized and how many homes have been reported as weatherized. So it is a problem. I don't believe we have a figure or total needs and I don't believe the Department of Energy has a figure either.

Senator DOMENICI. So we don't really know if we go with this bill, or if we go with the bill that pulls low income assistance for weatherization out and set it up at *x* hundred million a year for 10 years, what we are really accomplishing versus the total universe of houses that need help?

Mr. DUFFUS. I believe Dr. Gibbons referred to it earlier, there may be 10 to 12 million low income households in the Nation. That is the total estimated figure.

Dr. GIBBONS. We have some data on that. I would be happy to furnish it.

Senator DOMENICI. Do that, and put alongside of it our best estimates of what we have been doing at the level of funding that we have been funding the program. If it is $10 million, how many have we helped.

Senator FORD. One of the budget problems, there is a memorandum being circulated, I guess by the Treasury Department, to do away with the energy tax break. Can we say how many homes have been helped or improved their position as it relates to these items that you can take a tax credit on? Do we have that available?

Senator DOMENICI. I don't know if they have it, but if it is available we can get it.

Senator FORD. Would IRS have that information?

Senator DOMENICI. Yes. I think their thesis at this point in time is that it has done more in terms of accomplishing a conservation refurbishing than any and all the programs combined, but I think they are now beginning to look at the dollar expenditure, because dollars are dollars whether you take them off your tax return or whether we give somebody the money.

Senator FORD. I was interested in what the Doctor said, reducing imports from 24 to 13 percent and the equivalent of a million and a half barrels of oil per day?

Dr. GIBBONS. Yes.

Senator FORD. This program he was discussing, I don't think those figures have been refuted, but the percentage of use has been decreased 9 percent, and you went into the equivalent of a million and a half barrels of oil per day. That is 550 million barrels of oil per year.

Dr. GIBBONS. It is a very impressive number.

Senator DOMENICI. Could we ask the staff, just for numbers, to get that, what IRS says was done in terms of number of units and cost expended and cost to the taxpayer?

Thank you very much. We appreciate your appearing.

[Additional material follows:]

STAFF MEMO

October 26, 1981

TO: Paul Gilman

FROM: Richard E. Dick Rowberg and Mary Procter, MEP
OTA Energy Program

SUBJECT: Information on Residential Energy Tax Credits Relevant to Hearings on S. 1544

Enclosed is some information on the Residential Energy Tax Credit, based on information assembled for the forthcoming OTA assessment, *The Energy Efficiency of Buildings in Cities*. The information comes from unpublished IRS data and from the Internal Revenue Service Preliminary Report Statistics of Income — 1978 Individual Income Tax Returns, Washington, D. C., 1980. If you have any questions, do not hesitate to call either of us on 226-2144.

Enclosures

Residential Energy Tax Credit

The attached tables give some information on the Residential Energy Tax Credits which were claimed on the 1978 income tax returns for energy retrofits installed between April 1977 and December 1978. Table A shows that the percentage of returns claiming the credit went down sharply with income, from 16.5% of those with taxable incomes above $20,000 to 1.2% of those with taxable incomes below $10,000. Table B presents the same information but relates the taxable income classes to census data on family and household income, and also shows that a large fraction of those taking the credit in the poorest income class carried the credit forward into another tax year.

Table C and Table D show the total amount of credits taken and the total amount of retrofit expenditures which they stimulated: almost $600 million of credits on almost 6 million returns covering a total of $4 billion in conservation expenditures and about $120 million in renewables. Table C shows that virtually all the credits were less than $200 each and Table D shows that more than half of the credits went for insulation and more than half for storm windows or doors (returns could claim credits for more than one measure).

TABLE A

SUMMARY TABLE: INCOME AND RESIDENTIAL ENERGY TAX CREDITS

Adjusted Gross Family Income Class	Total Number of Returns (millions)	Percent of Returns Requesting Energy Tax Credits 1978
More than $20,000	22.3	16.5%
$15,000 to $19,999	11.4	9.8%
$10,000 to $14,999	14.3	4.5%
0 to $9,999	39.9	1.2%
TOTAL RETURNS	87.9	

TABLE B

INCOME AND RESIDENTIAL ENERGY EXPENDITURE, 1978

Income Level[1]	Families & Unrelated Individuals		Returns		Resid. Energy Expenditure		Credit Carried to 1979	
	No.[2]	% Tot.	No.	% Tot.	No.	% Tot.	No.	% Tot.
Under 5,000	14,208	16.4	20,299	24.8	57	0.95	39	23.1
5,000-9,999	16,088	18.6	19,617	21.8	438	7.4	80	47.3
10,000-14,999	13,742	15.9	14,261	15.9	645	10.9	26	15.4
15,000-19,999	16,066	18.6	11,416	12.7	1,122	18.9	12	7.1
20,000 +	26,378	30.5	22,297	24.8	3,678	61.9	12	7.1
TOTAL	86,482	100.0	87,890	100.0	5,940	100.0	169	100.0

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[1] Money income from census for 1977 for families and unrelated individuals - all other data reported by same classes but using IRS adjusted gross income.

[2] In thousands.

SOURCES: U.S. Bureau of Census, Current Population Reports, Series P-60, No. 120 "Money Income and Poverty Status of Families and Individuals in U.S.: 1978" Advance report GPO, 1979, p. 2.

Internal Revenue Service Preliminary Report Statistics of Income - 1979, Individual Tax Returns, Washington, D.C., 1980.

TABLE C

Residential Energy Credits, Size, Number, Amount by Type, 1978

Residential Energy Credits[1]

		Total			
Size of Credit		No of Returns	% Tot.	Amount (000's)	% Tot.
$ 1 under	$100	3,971,531	66.9	178,755	30.4
100	200	1,105,628	18.6	153,357	26.1
200	300	394,979	6.6	96,727	16.5
300	400	435,137	7.3	130,803	22.2
400	500	5,830	.0	2,598	.4
500	1,000	20,384	.3	15,181	2.6
1,000	1,500	3,788	.0	4,345	.7
1,500	2,000	665	.0	1,094	.2
2,000	2,200	564	.0	1,175	.2
2,200	2,500	1,502	.0	3,546	.6
2,500+		161	.0	403	.0
Total		5,940,169		587,984	

[1] Total credits claimed in a year regardless of the limitation relative to tax liability and resultant carryover of credits.

Source: Internal Revenue Service Preliminary Report, Statistics of Income - 1978, Individual Income Tax Returns, Washington, D.C., 1980, p. 6.

TABLE D

Residential Energy Expenditures and Credits by Type Expenditure, Number, Amount and Average Expenditure, 1978

	Number Of Returns	% of Total	Amount Expend. $(000's)	Average Expenditure
Total Returns	5,940,169[1]		4,205,636	708.
Total Principal Residences	5,941,419			
Total Energy Conservation	5,900,788	100.0[2]	4,090,096	693.
Type Energy Conservation:				
Insulation	3,933,123	66.7	1,758,727	447.
Storm Windows or Doors	3,342,373	56.6	1,790,437	536.
Caulking	2,559,906	26.4	87,424	56.
Other	826,463	14.0	453,509	548.
Energy Conservation Credits	5,900,788	—	557,864	95.
Total Renewable Sources	68,102	100.0	115,540	1,697.
Type Renewable Source:				
Solar Energy	56,643	83.3	110,798	1,956.
Geothermal	1,736	2.6	3,142	1,810.
Wind Energy	10,395	15.3	1,600	154.
Renewable Resource Credits	68,102	—	30,119	—

1/ Total doesn't equal sum of conservation and renewable returns because one return could claim both conservation and renewable credits and would be counted twice in disaggregated form.

2/ Does not add up to 100% because more than one measure can be claimed on one return.

Source: Internal Revenue Service Preliminary Report, Statistics of Income-1978, Individual Income Tax Returns, Washington, D.C., 1980, p.42.

Senator **Domenici**: We are taking too much time from the next panel, so we will have to expedite them.

The next panel is made up of Edward Lyle, counsel, Alliance To Save Energy, Dr. Mark Cooper, director of research for Consumer Energy Council of America, Cynthia Prawl, would you join that panel, the senior policy analyst for the California Energy Commission? Why don't we have all five?

Senator **Ford**. That suits me fine.

Senator **Domenici**. Donald Myers, treasurer of American University, and Anthony Maggiore, a member of the Committee on Energy, National Community Action Agency Executive Directors Association.

Mr. Lyle, would you lead off? I think in fairness to you we ought to ask you to summarize your statements, if you have statements, and we will put them in the record, and then we will have a chance to exchange views and ask questions.

Mr. Lyle, you are first.

STATEMENT OF EDWARD LYLE, COUNSEL, THE ALLIANCE TO SAVE ENERGY

Mr. **Lyle**. Thank you, Mr. Chairman.

I am Edward Lyle, counsel for the Alliance To Save Energy. We are a national nonprofit organization comprised of representatives of business, labor, academia, and the environmental and consumer movements. We were formed in 1977 for the purpose of promoting energy efficiency. We have as supporters 85 major corporations, the leadership of organized labor, and prominent representatives of other segments of American society.

Earlier this month we submitted to this committee a document dated September 2, 1981, in which we opposed the passage of S. 1544. We did this for four reasons.

First of all, we found that there were no requirements for State plans and periodic reports in S. 1544, and we believe that these controls are needed to some degree to assure that Federal moneys are spent in accordance with Federal intent and purpose.

Second, we find that the authorization level was inadequate to fund the conservation programs that would be folded into S. 1544's block grant.

Third, we found that the use of block grant moneys in S. 1544 for supply, or possibly for research and development for supply, would be unacceptable.

What S. 1544 does is consolidate energy efficiency programs, and we feel that if such a consolidation should take place, money which would be in the resulting block grant should be used for energy efficiency and not for supply. More fundamentally, we feel that the existing Federal incentives to promote supply are far greater than they are for conservation, tax expenditures, and direct Federal outlays.

In Special Analysis G of the 1982 Federal Budget, it indicates that in fiscal year 1981 Federal assistance in terms of expenditures and outlays for supply ran at $15.5 billion, I believe, for energy efficiency. For energy conservation, it ran at $1.6 billion. What we see S. 1544 doing in permitting its block grant moneys to be used for supply would be potentially skewing that imbalance even further. Therefore, we feel that use of these moneys for supply would be very inappropriate.

Fourth, on the State match requirements, 30 percent, 50 percent, and 50 percent for fiscal years 1982, 1983, and 1984 respectively, we feel that they are proposed too soon and they are too high. We attended the hearing on September 29, the first hearing on this bill, and after considering the comments there we still believe that the reasons we stated in our September 2 statement are valid today.

However, we feel that any move toward a block grant at this time would be premature. Most of the complaints that we have heard about DOE's categorical programs in the past have concerned the implementation of those programs rather than the underlying statutory scheme. We feel that some of those problems have been corrected to date and others remain. Notable among the ones remaining is the problem of allocating general energy efficiency promotion and possibly other activites by State officials across either different measures within a conservation program or across different programs, and if you are set up on a computer this becomes very hard to do and it is very wasteful, and we think that that is a good example of something which might be corrected by regulations rather than a statutory revision.

Furthermore, we find no hesitation of the present DOE leadership to revise regulations, and indeed, with regard to energy efficiency programs, they already have in some instances, but they haven't conducted a thorough across-the-board review, and we believe that that sort of review ought to be undertaken first and possibly it could relieve not only excessive regulatory burdens, but also statutory burdens.

There may be a way to lessen the load to achieve flexibility for the States. We would like DOE to come with a report after doing the analysis and submit a bill to accompany it, and we feel the debate of this could be more focused, less time consuming, and less controversial.

If it is found that a block grant would be better than various categorical programs, we have suggestions on what that block grant should include.

First, we feel there should be some flexibility to the States, and possibly localities, in allocating block grant funds among various programs within the block grant, but we also feel there needs to be some Federal control. What we believe might be an acceptable compromise would be to specify minimum percentage requirements for funding each of these uses or programs within a block grant and leave to the Governor the discretion to allocate the balance of the funds. We suggest the possibility of a waiver so even perhaps those minimum allocation of funds to a particular program could be waived in unusual or compelling circumstances.

Second, we would favor a requirement for State plans and periodic State reports, and an authorization for Federal audits, both from the executive branch and also GAO. What we are talking about here would be one plan and possibly one report rather than multiple plans and reports, so there the burden would be lessened on the States. We feel there is a necessity to keep the requirements to a minimum. But, again we feel there is also a necessity to make sure that Federal moneys are spent for the purposes specified by Congress.

The next of our suggestions relates to State match requirements. We believe that a State match of 10 percent or less would be appropriate to promote proper consideration of how the money is going to be used by the States. We feel that if there is some State money on the line that allocation may get done in a more efficient way. We feel that the purpose of the block grant program is to assist States, and if the matching requirement is too high, poor States may be forced to forego a good bit or all the systems available under such a grant. Therefore, we feel that a 10 percent ceiling would be the proper amount.

Furthermore, we believe that such matching requirements should not be imposed before fiscal year 1984. Senator Ford mentioned the bi-annual budgets, and we feel 2 years should be allowed so all States can get ready to go and meet what matching requirements are necessary.

There was a suggestion made by Nate Helms, of the National Governors Association, in which he suggested briefly the possibility of using block grant funds for loans as well as grants. The thought here—we second it—would be to have Federal moneys used for loans to be paid back from the private sector out of energy savings, and in the long run we think that might be the best way to go for the Federal Government, the State government, and the private sector. Eventually a revolving fund might be set up out of which loans would be made and repaid on an annual basis.

We suggest the possibility of using block grant funds for loan guarantees in some instances. Hopefully interest charges would be reduced and loans would be made more available. We feel that this would enable public moneys to leverage a much greater amount of private capital in some instances and thereby provide more improvements in energy efficiency. We suggest the option of using block grant moneys for grants, loans, or loan guarantees, or any combination thereof.

That concludes my statement. Thank you.

[The prepared statement of Mr. Lyle follows:]

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Statement of the
Alliance to Save Energy
concerning the proposed
"State and Local Energy Block Grant Act of 1981"
(Senate bill 1544)

Presented by

Edward Lyle, Counsel

October 16, 1981

Statement of the Alliance to Save Energy

Good morning, Mr. Chairman. My name is Edward Lyle, and I am counsel to the Alliance to Save Energy. We appreciate the opportunity to testify this morning on Senate Bill 1544, the proposed "State and Local Energy Block Grant Act of 1981."

The Alliance to Save Energy is a national nonprofit organization composed of representatives of the business community, government, labor, academia and the environmental and consumer movements. Founded in 1977, it is dedicated to advancing energy efficiency, a key component of national energy policy and our national security interests. It numbers among its financial supporters and adherents approximately 85 major United States corporations, the leadership of organized labor, and prominent representatives of other segments of American society.

Senate Bill 1544 would reorganize federal assistance to states and localities in promoting energy efficiency. It would do this by abolishing many categorical programs within the Department of Energy and replacing them with a 3-year block grant authorized at $200 million annually.

In a September 2, 1981 statement which has been submitted to this Committee and which we attach hereafter, we set forth our opposition to S.1544 for the following reasons:

1. The block grant proposed in this bill contains no requirements for state plans or periodic state reports aimed at assuring that states will in fact spend federal monies in

accordance with federal purposes. We believe that some of the present federal requirements concerning these plans and reports need modification, but we also believe that S.1544 goes too far in omitting plans and periodic reports altogether.

2. The proposed authorization level of $200 million annually is highly inadequate for the number of energy efficiency programs that would be folded into S.1544's block grant.

3. S.1544 would permit block grant monies to be used to promote energy supply as well as energy efficiency. Because this block grant would replace conservation programs , the inclusion of energy supply as an eligible use of grant monies is inappropriate. Federal tax and spending policies, moreover, already result in far more federal assistance for energy supply than energy efficiency. This is true even though increased efficiency often provides a better return on investment than more extensive development of supplies. We therefore believe that further skewing federal assistance toward energy supply is unwarranted and unwise.

4. The 30-50-50 state match requirements are too immediate and far too high, even at the sharply reduced funding levels that S.1544 would bring about.

We believe that these reasons expressed on September 2nd are equally valid today.

In addition, we believe that any statutory changes in DOE's energy efficiency programs would be premature at this time. Most of the complaints which have been voiced about these programs have concerned not the statutes that created them, but the Department of Energy's implementation of them. DOE has corrected many of these problems in the last few years, but further improvements can be made. Some of these improvements can be found in program administration, particularly financial management. A good example concerns the time and paperwork needed to allocate certain costs of state conservation programs across multiple DOE grants.

In this and other instances, what is required is not a statutory change, but a revision of the Department's regulations. That the current administration is bent on simplifying and elimininating DOE requirements where possible has been frequently demonstrated to date -- perhaps most notably in its thorough overhaul of the information requirements for exemptions under the Fuel Use Act.

We perceive no reason why a similar review and revision of DOE regulations concerning energy efficiency programs cannot and will not be undertaken. Indeed, we believe that such DOE action is highly desirable as the initial step in reforming such programs. During such a review, the Department would identify those areas -- if any -- where it believes statutory modification is necessary, and a bill incorporating those proposed changes then could be presented for consideration. The result would be a more focused and less time-consuming debate before this Committee concerning DOE's energy efficiency programs.

We believe that such an initial, administrative review would be most appropriate, furthermore, because the Administration has not questioned the appropriateness of providing federal assistance to states and localities as now occurs under DOE's categorical programs. The Administration's objective, as set forth in the July 17, 1981 letter to this Committee from David Stockman, is to reduce the overhead of, and provide greater flexibility to, state and local governments in administering energy efficiency programs.

If this initial administrative review demonstrates that a block grant approach is more desirable than retaining DOE's existing categorical funding, we believe that any subsequent federal legislation establishing a block grant should include the following:

1. It should contain some flexibility allowing governors[1/] to allocate grant monies among eligible uses, but it should also contain some guidelines concerning this allocation. Such guidelines might specify, for example, a minimum percentage of block grant monies for each program, with monies exceeding those minimums to be allocated at the governor's discretion. A waiver provision might also be incorporated to allow the governor,

---

[1/] We take no position on the desirability of a mandatory passthrough of a percentage of block grant funds to local governments. Our use of the words "governor" and "state" therefore should not be taken as indicating our opposition to passthrough proposals.

subject to federal approval, to forego even minimum funding for a particular program under unusual and compelling circumstances.

2. States should be required to submit and obtain federal approval of plans prior to receiving block grant funds. We believe that state plans are a desirable mechanism to assure that all states achieve a minimal level of planning and efficiency in their distribution of federal monies. Plan requirements, however, should be held to the minimum necessary to assure that states will spend block grant monies in accordance with purposes specified by Congress. Keeping these requirements at a minimum can be achieved to some degree through legislation, but we believe the real test will come in the promulgation of implementing regulations.

3. To provide some control on the spending of federal funds after they have been received by states, periodic state reports should be required and federal audits should be authorized. As with state plans, these requirements should be kept to the minimum necessary - both legislatively and administratively - to assure compliance with federal purposes.

4. States should be required to meet a matching fund level of 10% or less beginning no earlier than FY 1984. We believe that a small match is desirable in promoting proper consideration and efficiency in a state's distribution of block grant monies. This match requirement should be kept at a minimum, however, because the objective of a block grant would be to assist state and localities in promoting energy efficiency. Too

high a match would serve no purpose in achieving this objective. More importantly, it might force some states, primarily the poorer ones, to forego most or all such assistance.

As for the timing of match requirements, they should not be imposed until FY 1984 at the earliest to allow states an adequate period to establish necessary legal authority and otherwise plan for and provide matching funds.

5. Consideration should also be given to the possibility of authorizing states to make loans as well as grants with federal funds. This proposal was made briefly on September 29th by Mr. Ned Helme of the National Governors' Association. With this change, investments in energy efficiency could be financed with federal and state funds distributed by state governments. Loans would be paid back out of energy savings in subsequent years; eventually, a revolving fund might be established out of which energy efficiency loans could be made on an annual basis.

6. We would also suggest taking Mr. Helme's proposal one step further and allowing states to use block grant monies to set up loan guarantee programs. Funds in these programs would be used to guarantee private loans for energy efficiency investments, thereby reducing the cost of those loans and making them more available. Public monies thus could be used to leverage much greater amounts of private capital and facilitate energy efficiency improvements on a more widespread basis. With this

additional change, states would have the option of making grants, loans, or loan guarantees, or any combination thereof, with block grant monies.

This concludes my testimony, Mr. Chairman. I would be pleased to answer any questions you or other members of the Committee may have.

APPENDIX

Alliance to Save Energy
1925 K Street, N.W. Suite 507 Washington, D.C. 20006 202/857-0666

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for Management & Budget

Statement of the
Alliance to Save Energy
in opposition to the proposed
"State and Local Energy Block Grant Act of 1981"

(Senate bill 1544)

September 2, 1981

Statement in Opposition to S. 1544

Provisions of S. 1544

The proposed "State and Local Energy Block Grant Act of 1981," introduced on July 30, 1981 and attached hereafter, would authorize $200 million annually in FY 82-84 for multi-purpose energy block grants. Grant moneys, as disbursed by the Department of Energy, could be used for energy audits, weatherization and other energy conservation programs, for energy emergency preparedness, and for transportation energy efficiency. Moneys could also be used for energy supply measures and for energy research and development. A state match of 30, 50 and 50% would be required for FY 82, 83 and 84, respectively, but states would not be required to submit plans or general reports to DOE. Section 8 of the proposed Act would terminate many of DOE's categorical programs for energy conservation.

Position of the Alliance

The Alliance unequivocally opposes S. 1544. The principal reasons for our opposition are as follows:

1. While we take no position here on the desirability of block grants in general, we believe that the block grants proposed in S. 1544 would be seriously deficient. Even in a block grant, a reasonable amount of control on the spending of federal funds should be provided to assure compliance with the intent of Congress. With no requirement in S. 1544 for even minimal state plans or for general and periodic reports on the spending of block grant moneys, we do not believe the proposed Act provides an acceptable level of controls.

2. The proposed authorization level of $200 million is woefully inadequate for the number of conservation programs - to say nothing of potential energy supply programs - that would be combined under this proposed Act.

3. We believe that including energy supply as an eligible use of grant moneys under S. 1544 would be unwise. These moneys have been used in the past for energy conservation, and we believe the need for federal assistance for conservation is far greater at present than for production. In 1980 federal tax and spending policies resulted in 12 times the amount of federal assistance for energy supply as for energy conservation, even though conservation often provides a better return on investment than more extensive development of supplies. Further subsidies for energy supply thus are not appropriate.

4. The 30-50-50 state match requirements are too immediate and far too high. They are too immediate because many states could not authorize and provide necessary matching funds by the beginning of FY 82 (October 1, 1981) and possibly even before the beginning of FY 83 (October 1, 1982). These match requirements are far too high because many states simply do not have the additional revenues which these high matches would require. This is especially true of the poorer states, which have higher numbers of low-income people and greater need for federal assistance, but also fewer resources with which to meet any matching requirements.

Contact: Ed Lyle, Counsel
857-0666

September 2, 1981

lated problems. We will support and encourage such efforts. I hope that they are underway right now, and if they are not, I hope that our encouragement here today will provide an added incentive to move in these directions.

Congress cannot now stand idly by, and trust that things will work out for the best. We have acted in the past to put warning labels on potentially dangerous products. ~~The Senate has voted in the last Congress to put a warning label on alcoholic beverages, even before the Surgeon General's advisory about alcohol consumption during pregnancy being related to birth defects. While we do not know exactly the extent of the effect such a warning label will have in reducing alcohol-related health hazards, most experts agree that in combination with other public awareness campaigns the effect will be positive.~~

~~Certainly no one would argue that warning labels would make matters worse. If one baby could be spared the agony of going through life hampered by an alcohol-related birth defect, or if one teen could be saved from a fatal car accident, the trivial expense of a warning label would be well worth it.~~

~~But in fact, Mr. President, we have every reason to believe that many thousands of babies could be so spared, and many thousands of lives saved if we can increase the awareness of the problem via warning labels. We need the sense of the Congress and the Government that alcohol health hazards are real, and that we stand behind efforts to educate the public to them. Such evidence of congressional interest and concern is best witnessed by a warning label.~~

~~A warning label on hard liquor does not mean that alcohol in beer and wine is any less damaging to the fetus or less of concern to driving and other health risks. An alcohol warning label does not mean that we believe that this is all we must do to deal with these serious problems. An alcohol warning label does not mean that we want the heavy hand of big Government controlling our lives. What an alcohol warning label does mean is that Congress feels obligated to address the problem of alcohol abuse head on. A warning label is a clear indication that Congress trusts Americans to make the right decision, when they are provided with accurate information. I know that is my determination, and I believe that this bill will have significant positive value in our continuing efforts to reduce the economic, social, and emotional toll that alcohol misuse and abuse takes from our society.~~

~~The case for issuing a warning label has never been so strong, the evidence so persuasive, and the potential good that can be done so great as they are~~ with this issue. I urge all my colleagues to consider this issue carefully. I hope they will give it their full support.

By Mr. McCLURE (for himself and Mr. DOMENICI):

S. 1544. A bill entitled "The State and Local Energy Block Grant Act of 1981"; to the Committee on Energy and Natural Resources.

STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

● Mr. McCLURE. Mr. President, the administration has submitted two reports to the Committee on Energy and Natural Resources regarding S. 1166, the "National Home Weatherization Act." The reports were received from David Stockman, Director of the Office of Management and Budget, and R. Tenney Johnson, General Counsel of the Energy Department. Both reports state the administration's opposition to S. 1166 and to the reauthorization of the numerous existing Federal categorical energy conservation grant programs, as proposed by S. 1166.

The existing Federal categorical programs include weatherization assistance for low-income persons, energy extension service, State energy conservation plans, energy conservation in schools and hospitals, State emergency conservation activities and several other programs. Both reports, however, propose as an alternative a new energy block grant program at an authorized level not in excess of $200 million per year. In order to provide the Senate with a fully developed legislative proposal of the energy block grant alternative, I requested the Energy Department to prepare a legislative draft reflecting details of the program envisioned by the administration.

Today, I am introducing the DOE draft legislation to establish an energy block grant, "The State and Local Energy Block Grant Act of 1981." It is my hope that this bill will facilitate the Senate's consideration in this Congress of the most appropriate and fiscally responsible approach to any continued and local energy programs. As chairman of the Energy and Natural Resources Committee which authorizes these programs and as chairman of the Interior Appropriations Subcommittee which appropriates annually the funds for these programs, I am convinced, as I am sure many other Senators are, that it is time now for a thoughtful review of this proliferation of Federal categorical programs. I believe that the DOE-drafted bill I introduce today will facilitate that review.

Mr. President, I ask unanimous consent that Mr. Stockman's letter of July 17, 1981, Mr. Johnson's letter of July 24, 1981, the text of the DOE drafted bill, and an outline of the bill prepared by DOE be printed in the RECORD.

There being no objection, the bill and material were ordered to be printed in the RECORD, as follows:

S. 1544

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "State and Local Energy Block Grant Act of 1981".

SEC. 2. DEFINITIONS.

For the purposes of this Act, the term "State" means the 50 States, the District of Columbia, and Puerto Rico.

SEC. 3. ALLOCATION OF FUNDS.

(a) For the purposes of providing the financial assistance authorized by this Act, the Secretary of Energy shall allocate annually the sums available for financial assistance under this Act among the States in the following manner—

(1) 75 percent shall be allocated on the basis of the resident population of the States; and

(2) 25 percent shall be allocated equally among the States.

(b) Notwithstanding subsection (a) of this section, the Secretary of Energy may set a maximum allocation for the Virgin Islands, Guam, American Samoa, the Government of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

SEC. 4. PAYMENTS TO STATES.

(a) Upon annual application, the Secretary of Energy shall make payments as provided by section 203 of the Intergovernmental Cooperation Act of 1968 (42 U.S.C. § 4213) to each State, not to exceed its allocation under section 3 of this Act, for use by the State as provided in section 5 of this Act.

(b) Any State receiving financial assistance under this Act shall provide matching funds from non-Federal sources in an amount equal to—

(1) 30 percent of the amount awarded, for fiscal year 1982;

(2) 50 percent of the amount awarded, for fiscal year 1983, and

(3) 80 percent of the amount awarded for fiscal year 1984.

SEC. 5. USE OF GRANT MONEY.

(a) A State may use amounts paid to it under section 4 for energy conservation and supply activities, including but not limited to—

(1) energy conservation,

(2) energy conservation measures and weatherization in public or nonprofit institutional buildings, including schools, hospitals, public care institutions and local governmental buildings,

(3) weatherization for low-income persons,

(4) residential and commercial building conservation,

(5) residential and commercial energy audits and technical assistance,

(6) energy emergency preparedness,

(7) renewable energy research, development, and demonstration,

(8) energy supply, research and development,

(9) transportation energy efficiency, and

(10) energy conservation and supply development in the agricultural sector.

(b) Amounts described in subsection (a) may not be used for costs of administration in excess of 10% of the amount awarded under section 4.

(c) A State shall obligate amounts described in subsection (a) by the end of the fiscal year following the fiscal year for which those amounts were appropriated.

SEC. 6. REPORTS AND AUDITS.

(a) The Secretary of Energy, by general or special orders, shall require any grantee, subgrantee or other recipient of financial assistance under this Act to provide, in the form the Secretary of Energy prescribes, whatever reports or answers in writing to specific questions, surveys, or questionnaires as may be necessary to enable the Secretary of Energy to ensure that funds made available by this Act are properly spent.

(b) Each person responsible for the administration of any project receiving financial assistance under this Act shall keep whatever records the Secretary of Energy prescribes in order to assure an effective financial audit and performance evaluation of that project.

(c) The Secretary of Energy, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, information, and records of any project receiving financial assistance under this Act that are pertinent to the financial assistance received under this Act.

(d) Payments under this Act may be made in installments and in advance, or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments.

Sec. 7. Appropriations Authorization.

There is authorized to be appropriated for purposes of section 4 of this Act $200,000,000 for each of the fiscal years 1982, 1983, and 1984.

Sec. 8. Technical and Conforming Amendments.

(a) The Energy Security Act is amended—

(1) in title V, by striking out subtitle F (42 U.S.C. §§ 8285–85c.), relating to energy auditor training; and

(2) by striking out the items in the table of contents relating to subtitle F of title V.

(b) The National Energy Conservation Policy Act is amended—

(1) in title II, by striking out parts 1 (42 U.S.C. 8211–26) and 5 (42 U.S.C. 8235–351) and section 233 (92 Stat. 3227), relating to residential energy conservation and weatherization assistance for low-income persons;

(2) by striking sections 303 and 304 (92 Stat. 3248) and section 312 (42 U.S.C. 6371j.), relating to energy conservation programs for schools and hospitals and buildings owned by units of local governments and public care institutions;

(3) by striking out title VII (42 U.S.C. 8281–84), relating to the commercial and apartment conservation service; and

(4) in the table of contents, by striking out the items relating to—

(A) parts 1 and 5 and section 233 of part 2 of title II,

(B) sections 303, 304 and 312, and

(C) title VII.

(c) The Energy Research and Development Administration Appropriation Authorization Act of 1977 is amended by—

(1) striking out section 112 (42 U.S.C. 5907–a), relating to the appropriate technology grants program; and

(2) striking out title V (42 U.S.C. 7001–7011), relating to the Energy Extension Service.

(d) The Energy Policy and Conservation Act is amended—

(1) by striking out parts D (42 U.S.C. 6321–27), and G and H (42 U.S.C. 6371–721.) of title III, relating to State energy conservation plans and energy conservation programs for schools and hospitals and buildings owned by units of local governments and public care institutions; and

(2) by striking out the items in the table of contents relating to parts D, G and H of title III.

(e) The Energy Conservation and Production Act is amended—

(1) by striking out part A of title IV, (42 U.S.C. 6851–72), relating to weatherization assistance for low-income persons; and

(2) by striking out the items in the table of contents relating to part A of title IV.

(f) The National Housing Act of 1949 is amended by striking out section 504(c) (42 U.S.C. 1474(c)), relating to the rural weatherization grant program.

Office of Management and Budget,
Washington, D.C., July 27, 1981.
Hon. James A. McClure,
U.S. Senate, Washington, D.C.

Dear Jim: Thank you for requesting a statement of the Administration's position on S. 1166, the National Home Weatherization Act of 1981.

This bill is intended to reauthorize certain categorical grant programs administered by the Department of Energy, including weatherization assistance for low-income people, energy extension service activities, State energy conservation planning, State energy emergency plans and activities and energy conservation in schools and hospitals, as well as any other State energy conservation program authorized by Federal law. States would be authorized to submit a single annual application for financial assistance to implement the programs authorized under this Act. Unless waived by the Secretary of Energy, States would be required to utilize not less than 65 percent of such assistance for low income weatherization. Funding for these programs would be authorized at a level of $400,000,000 in FY 1982, FY 1983 and FY 1984.

The Administration is in agreement with the findings of this bill that the public sector has an important role to play in supplementing private energy conservation initiatives, particularly in assisting low-income persons adjust to higher energy costs, and that the existing energy conservation grant programs include a myriad of unnecessary, costly and redundant Federal requirements which constitute an inefficient use of scarce Federal financial resources.

The proposed bill would have the advantage of improving the process of applying for assistance under the existing categorical programs. Yet, we believe that more far-reaching reforms can and must be taken to address the concerns we share. The President's budget reform plan has sought to consolidate as many narrow categorical grants as possible into a few block grants to facilitate reduction of State and local overhead and to permit State and local officials to allocate funds to the most urgent areas of need. In keeping with this principle, and in light of the powerful market incentives being created by higher energy prices, the Administration has proposed to terminate the categorical grant programs that would be reauthorized by S. 1166.

Where institutions or individuals are clearly less able to adjust to higher energy prices without undue hardship, we have proposed to continue providing Federal assistance through State and local governments. In particular, the Administration has supported continuation of the schools and hospitals grant program and of weatherization and fuel payment assistance for low-income households. Moreover, assistance for low-income weatherization would be available both through the $4.2 billion Community Development Block Grant administered by the Department of Housing and Urban Development and through the $1.9 billion Low-Income Energy Assistance Block Grant administered by the Department of Health and Human Services.

Because the Administration has already taken these steps to address the concerns raised by S. 1166 and because the spending levels proposed for the bill substantially exceed those we have proposed for Department of Energy conservation programs, we oppose this particular bill. However, the Administration recognizes that the House-Senate budget reconciliation conference now underway is seriously contemplating conservation spending levels in excess of those we have requested, particularly for grants to State and local governments. Under these circumstances, in a spirit of compromise, the Administration would not oppose legislation authorizing a State and Local Energy Block Grant for energy supply, conservation and low-income weatherization activities which would repeal and replace all the existing categorical conservation grant programs, including the Residential Conservation Service, and for which funding would be authorized at a level not in excess of $200 million per year.

Thank you again for providing us with an opportunity to express our views on this important matter.

Sincerely,

David A. Stockman,
Director.

Department of Energy,
Washington, D.C., July 24, 1981.
Hon. James A. McClure,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, D.C.

Dear Mr. Chairman: This is in reply to your July 17 request for Department of Energy (DOE) views on S. 1166, the "National Home Weatherization Act of 1981".

The bill would reauthorize certain energy conservation grant programs to the States. The programs include weatherization assistance for low-income persons, energy extension service activities, State energy conservation plans, State emergency conservation plans and activities, energy conservation in schools and hospitals, and any other State energy conservation program authorized by Federal law. A State could submit a single annual application for funds to implement these programs. The State would have to spend at least 65 percent of the grant funds for low-income weatherization assistance. These programs would be authorized to be funded at a level of $400,000,000 in FY 1982, FY 1983 and FY 1984.

The Administration agrees with the bill's findings that the public sector has an important role to play in supplementing private energy conservation initiatives, particularly in helping low-income persons to adjust to higher energy costs, and that the existing energy conservation grant programs include a myriad of unnecessary, costly and redundant Federal requirements which constitute an inefficient use of scarce Federal financial resources.

S. 1166 would improve the process of applying for assistance under the existing categorical programs. Yet, we believe that more far-reaching reforms can and must be taken to address the concerns we share. The Administration favors consolidation of as many narrow categorical grants as possible into a few block grants to facilitate reduction of State and local overhead and to permit State and local officials to allocate funds to the most urgent areas of need. In keeping with this principle, and in light of the powerful market incentives being created by higher energy prices, the Administration has proposed to terminate the categorical grants programs that would be reauthorized by S. 1166.

To prevent undue hardship to those less able to adjust to higher energy prices, the Administration has supported continuation of the schools and hospitals grant program and of weatherization and fuel payment assistance for low-income households. Assistance for low-income weatherization would be available both through the $4.2 billion Community Development Block Grant administered by the Department of Housing and Urban Development and through the $1.9 billion Low-Income Energy Assistance Block Grant administered by the Department of Health and Human Services.

We oppose enactment of S. 1166 because of its high spending levels and because these conservation measures can be accomplished in other ways. However, we understand that the House-Senate budget reconciliation conference now underway is seriously contemplating conservation spending levels in excess of those we have requested, particularly for grants to State and local governments. Under these circumstances, in a spirit of compromise, the Administration would not oppose legislation authorizing a State and Local Energy Block Grant for energy supply, conservation and low-income weatherization activities which would repeal and replace all the existing categorical conservation grant programs, and for which funding would be authorized at a level not in excess of $200 million per year.

The Office of Management and Budget has advised that, from the standpoint of the President's program, there is no objection to submission of this report for the Committee's consideration.

Sincerely.

R. TENNEY JOHNSON,
General Counsel.

OUTLINE OF BILL'S MAJOR PROVISIONS

Secretary of Energy makes payments to States for energy block grants:

Allocation formula for payments to States; 75 percent of total allocated on basis of resident population. 25 percent of total allocated equally among States.

No allocation required for payments by States to locals.

State matching requirement: 30 percent in fiscal year 1982, 50 percent in fiscal year 1983, and 50 percent in fiscal year 1984.

States may use funds for:

Energy conservation and weatherization in public or non-profit institutional buildings, including schools, hospitals, public care institution and local government buildings.

Weatherization for low-income persons.

Residential and commercial buildings conservation.

Residential and commercial energy audits and technical assistance.

Energy emergency preparedness.

Renewable energy research, development, and demonstration.

Energy supply, research and development.

Transportation energy efficiency.

Energy conservation and supply development in the agricultural sector.

Reports and audits required.

Authorization level of $200,000,000 for each of fiscal years 1982, 1983, and 1984.

Following programs repealed:

Residential energy conservation.

Weatherization assistance for low-income persons.

Commercial and apartment conservation service.

Energy auditor training.

Appropriate technology grants program.

Energy extension service.

State energy conservation plans.

Rural weatherization grant program (at Farmer's Home Administration).

Energy conservation for schools and hospitals and for buildings owned by units of local governments and public care institutions.

By Mr. SYMMS (for himself and Mr. McCLURE):

S. 1546. A bill to define and clarify terms used in the patent from the United States dated June 29, 1911, granting certain lands to the State of Idaho; to the Committee on Energy and Natural Resources.

HEYBURN STATE PARK

Mr. SYMMS. Mr. President, today I join my colleague, Senator McCLURE, in introducing legislation to resolve an unfortunate situation which has been troubling our State and many of our constituents for over 6 years. The bill which we introduce at the request of the Idaho Attorney General will serve to define and clarify terms used in that patent from the United States dated June 29, 1911, granting certain lands to the State of Idaho for use as a public park. The language merely states that for purposes of this patent, use of the land as a public park shall be deemed to include leasing of certain parcels within the park boundaries to the general public for recreational homesites, and granting of permits for float homes on waters within the park. It is similar to legislation introduced in the House and Senate during the 96th Congress.

Mr. President, the land in question encompasses the Heyburn State Park, which has been owned, maintained, and operated by the State of Idaho as a public outdoor recreation area since its purchase from the Federal Government in 1911. It is a uniquely beautiful site encompassing approximately 5,000 acres in the Idaho panhandle. The park is named for Senator Weldon Heyburn, who represented Idaho in this body from 1903 until his death in 1912, and who was the prime mover behind the park's creation. Senator Heyburn had initially hoped to create a national park on this site; and while the Senate approved his plan, efforts to bring the House into concurrence were not successful. What was finally agreed to was language allowing the State of Idaho to buy the tract for use as a park. Soon after Congress had opened the way, the State purchased the park for the sum of $11,379.19, the appraised value of the site.

In June 1911, title to the land was issue to the State; however, Secretary of the Interior Walter L. Fisher had prepared a patent that not only required the land to be used in perpetuity as a public park, but also included other restrictions. Breach of these provisions would result in reversion of the land to the Federal Government. Senator Heyburn was outraged by the limited deed; and with the support of Governor Hawley of Idaho, he introduced Senate Joint Resolution 114 directing the Secretary of the Interior to issue a good and sufficient conveyance, in lieu of the conditional patent which had been given. The Senate quickly passed this resolution.

In October 1912, Senator Weldon Heyburn died in office. His resolution had not been considered in the House, and without the Senator to push it, the resolution and the issue it represented dropped from sight. Heyburn State Park continued under the conditional deed granted to Idaho in 1911. I have obtained a copy of that patent, which I shall ask to have printed in the RECORD at the conclusion of my remarks.

Mr. President, history has proven Senator Heyburn's concern about this conditional patent was well-founded. It is uncertainty about this conditional language which necessitates the legislation we are introducing today.

Almost from the outset, the State, as a part of its park operation, began leasing cottage sites on a small portion of the park lands. This practice continued from that time uninterrupted and unchallenged, until March 3, 1976, when the Solicitor of the Department of the Interior notified the State that in the Solicitor's opinion, the cottage leases do not carry out the required public park purposes, and that the State has therefore violated the conditions of the patent. The Solicitor has opined that the reversionary interest is held by the United States on behalf of the Coeur d'Alene Indian Tribe, and that title to the park land should be confirmed in the United States in trust for the tribe. On December 30, 1976, the State filed suit to obtain a declaratory judgment on the status of Heyburn State Park, and the Federal Government later filed a quit title action against the State. The situation has been further complicated by intervention of the tribe and leaseholders as parties to the actions.

Last year, Federal District Judge Callister ruled in favor of the State in the suit in which the United States and the Coeur d'Alene Indian Tribe requested the Heyburn State Park lands revert to the United States in trust for the tribe.

Subsequently, the tribe filed an appeal from that decision. All of the briefs have been filed in the case with the Court of Appeals for the Ninth District in San Francisco, but the parties have been advised by the court that because of the court's calendar, oral arguments on the case may not be set until the fall of 1982.

Even if the decision is upheld, there will always be uncertainty as to whether or not the State of Idaho is in violation of the terms of the patent because of questions arising from the opinion itself. At any time in the future, the tribe and/or the United States might again file suit based upon leasing practices that were in effect at that time, or other park management practices which they would contend violated the patent restriction. Such an action would again cost leaseholders and the State of Idaho many thousands of dollars in litigation expenses. Also, it would once again subject that State of Idaho to the prospect of the loss of the entire park, as the leaseholders would again face the prospect of the loss of their leaseholds and the improvements which they have constructed pursuant to their leases with the State of Idaho.

Consequently, the leaseholders and the State of Idaho will continue to incur legal expenses in connection with the case, and continue to wait for the opportunity to present their oral arguments in the court of appeals. Even after those arguments are made, perhaps in the fall of 1982, it will be sometime thereafter before the court of appeals renders its decision, and if there is an appeal to the U.S. Supreme Court, there could well be additional years of uncertainty even as to the outcome of the present litigation. During those years and even after a final decision in this case is reached, assuming the district judge's opinion was not reversed and the park turned over for the benefit of the tribe, the leaseholders and the State of Idaho will continue to live under the shadow of the loss of their improvements and the park in the future.

There is another problem that underscores the importance of a legislative solution in this matter. On the 13th day of March 1975, the Idaho State Board of Land Commissioners for the State of Idaho declared a moratorium against further improvements on cabins and float homes situated on the leaseholds at Heyburn State Park because of the patent claims and the uncertainty that action caused. The action in the Federal court was filed in December of 1976, and the litigation has continued since that time. The board of land commissioners at that time also advised the leaseholders that they would not consent to any assignment or sale of the leaseholds until such time as the litigation was concluded.

The moratorium prohibiting improvements continued at this time, as well as

Senator DOMENICI. Thank you very much. Your statement will be made part of the record. We appreciate your summarizing it.

Dr. Mark Cooper.

STATEMENT OF DR. MARK COOPER, DIRECTOR OF RESEARCH, CONSUMER ENERGY COUNCIL OF AMERICA

Dr. COOPER. I am Mark Cooper, research director for he Consumer Energy Council of America, "CECA." CECA is a broad-based coalition of major national consumer, labor, arm, public power, rural electric cooperative, senior citizen, urban, and low income organizations. I appreciate the opportunity to offer CECA's views on S. 1544, the State and Local Energy Block Grant Act of 1981.

In these times of fiscal austerity we recognize that certain programs must be scaled down, and we applaud the committee for giving careful consideration to alternatives to elimination of individual energy programs. However, we respectfully disagree with the approach, the funding level, and the assumptions of S. 1544.

First, we disagree with the block grant approach for energy programs on both conceptual and practical grounds. While we agree that a greater measure of State and local flexibility in managing Federal funds is desirable, we believe that flexibility should occur with limits. Those limits on flexibility must be dictated by the existence of preeminent national concerns.

Clearly, energy policy is such a preeminent national concern.

Energy conservation programs are necessary to enhance national security through a reduction in oil imports and to stabilize the national economy through "producing" low-cost conservation energy. Low income programs are necessary to achieve national social equity.

The cost of defending our energy supply lines to the Middle East and the benefits of reducing our aggregate demand for energy does not enter into the calculus of specific local governments, nor should they. They are genuinely and uniquely national concerns. State and local governments did not create the massive transfers of wealth that followed in the wake of recent energy price decontrol situations—the Federal Government did. State and local governments did not. The Federal Government promised to alleviate the burden on the poor by rising energy prices. State and local governments do not have adequate fiscal resources nor should they be expected to execute a fundamental commitment to preserving social equity.

Consideration of the national good is the responsibility of Congress and the President. To include in a block grant activities which address preeminent national concerns is a deferral of that responsibility.

The repeal and replacement of all these categorical conservation programs—low income weatherization, schools and hospitals conservation, energy extension service, emergency planning, residential conservation service, appliance energy efficiency standards, appropriate technology grants program, commercial and apartment conservation service, and requirements for State energy conservation plans—with a block grant which may be used for a host of other activities, as well, virtually guarantees the elimination of many of these vital conservation programs.

Our second major concern, a practical concern, is that the funding level contained in S.1544 is woefully inadequate. This block grant replaces conservation programs authorized at $336 million—a figure itself reflecting a severe reduction from fiscal year 1981 funding levels—with $200 million. And, under this legislation, that $200 million can be used for virtually any other energy activity, including supply, research and development, and emergency preparedness.

In addition to challenging the approach and the funding level contained in this legislation, we come to our third major concern which stems from the fact that, and questions the assumption that given the inadequate funding level, low income energy assistance monies will be used to fund low income weatherization activities. Although some form of consolidation of energy assistance and weatherization may be desirable, the current funding level for the low income energy assistance program is grossly inadequate for a combined assistance/weatherization program. The need for low income energy assistance far exceeds that program's funding level. There would be no monies remaining with which to fund weatherization.

If the administration succeeds in reducing the fiscal year 1982 energy assistance appropriation to $1.232 billion and S. 1544 becomes law, low income energy consumers may suffer this year almost a 40 percent net loss in Federal assistance since fiscal year 1981. This loss would represent a severe erosion of the Federal Government's commitment to protecting the poor from the ravages of rising energy prices.

Although all of the programs repealed by S. 1544 deserve careful consideration, we would like to focus on the low income weatherization program for a moment. The tremendous need for low income weatherization services and the availability of cost/benefit data on the DOE program make the low income weatherization program a practicularly useful example of the potentially disastrous impacts of this block grant legislation.

We have heard it mentioned by several prior witnesses that low income households have already reduced their energy consumption and they lack the key ingredient to further reductions, the resources to invest in conservation. Federal assistance is urgently needed if low income homes are to be weatherized.

The CECA study, entitled "A Comprehensive Analysis of the Costs and Benefits of Low-Income Weatherization and its Potential Relationship to Low Income Energy Assistance," assesses low income weatherization and its potential relationship to low income assistance, and I will submit it to the committee for the record. It assesses low income weatherization in terms of energy savings, cost-effectiveness and social benefits. The results are resoundingly positive in favor of the DOE low income weatherization program.

In terms of energy savings we found the average investment in weatherization in the DOE program was about $1,000, and the reduction in energy consumption averaged almost 27 percent, savings as good or better than those achieved in power research situations which we evaluated as a basis of comparison.

In economic terms, low income weatherization delivers energy at an average cost of between $19 and $40 per barrel of oil equivalent. This makes it a cheaper way to expand the Nation's energy resources.

Low income weatherization is less capital intensive and more labor intensive than any production option, creating more jobs per dollar of investment and output.

In terms of geographic concentration, the economic activity associated with low income weatherization is evenly spread across the Nation, thereby avoiding a massive transfer of wealth from energy consuming to energy reducing regions of the country.

Low income weatherization keeps resources and creates jobs where they are needed most, in the low income communities of the Nation.

Finally, in terms of social benefits, weatherization results in savings of energy bills of 17 percent. This amounts to almost 4 percent of the average income of low income households. These savings will increase as fuel prices continue to rise. The block grant approach could eliminate low income weatherization all together.

Moreover, even if the $200 million contained in S. 1544 were used for low income weatherization, an extremely remote possibility, the funding provided by this legislation would fall short of last year's effective level of funding by almost 50 percent.

We have focused our attention today on just one of the vital programs, which we know to be effective, which would be eliminated by S. 1544. The same kind of careful consideration of the costs and benefits of other programs which would be repealed by S. 1544 needs to be conducted.

We applaud the committee's efforts to examine thoroughly the consolidation of energy conservation programs, but we find S. 1544 is an unacceptable reversal of the Federal Government's commitment to energy conservation and to low income households. We would be happy to work with members of the committee so that our concerns can be incorporated into the legislation.

Again, I appreciate the opportunity to share with the committee the views of the Consumer Energy Council of America.

[The prepared statement and the study submitted by Dr. Cooper follow:]

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Testimony of

Dr. Mark Cooper
Director of Research
Consumer Energy Council of America

Before the
Committee on Energy and Natural Resources
United States Senate

on the
State and Local Energy Block Grant Act of 1981
S. 1544

October 16, 1981

Mr. Chairman and Members of the Committee:

My name is Dr. Mark Cooper, and I am Director of Research of the Consumer Energy Council of America (CECA). CECA is a broad-based coalition of major national consumer, labor, farm, public power, rural electric cooperative, senior citizen, urban, and low income organizations (see attached list). I appreciate the opportunity to offer CECA's views on S. 1544, the State and Local Energy Block Grant Act of 1981.

In these times of fiscal austerity, we recognize that certain programs must be scaled down, and we applaud the Committee for giving careful consideration to alternatives to elimination of individual energy programs. However, we respectfully disagree with the approach, the funding level, and the assumptions of S. 1544.

We must first challenge the block grant approach for energy programs on both conceptual and practical grounds. We agree with the supporters of this legislation that some greater measure of state and local flexibility in managing federal funds is desirable. However, we believe that flexibility should occur within limits. Those limits on flexibility must be dictated by the existence of preeminent national concerns.

Clearly, energy policy is a preeminent national concern, with great impact on national security, the national economy, and social equity. The energy programs repealed by this block grant legislation comprise activities with national goals, of national scope, and with national impacts.

Energy conservation programs are necessary to enhance national security through a reduction in oil imports and to stabilize the national economy through "producing" low-cost conservation energy. Low income programs are necessary to achieve national social equity.

Granting greater flexibility to the states to manage these activities would represent an abandonment of the exclusive federal responsibility to pursue national goals. We cannot rely on hundreds of state and local governments to base their policy decisions on the benefit of those decisions to the nation as a whole. The costs of defending our energy supply lines to the Middle East and the benefits of reducing our aggregate demand for energy does not enter into the calculus of specific local governments, nor should they. They are genuinely and uniquely national concerns.

Consideration of the national good is the responsibility of Congress and the President. To include in a block grant activities which address preeminent national concerns is a deferral of that responsibility.

The repeal and replacement of all these categorical conservation programs -- low income weatherization, schools and hospitals conservation, energy extension service, emergency planning, residential conservation service, appliance energy efficiency standards, appropriate technology grants program, commercial and apartment conservation service, and requirements for state energy conservation plans -- with a block grant which may be used for a host of other activities, as well, virtually guarantees the elimination of many of these vital conservation activities.

Wholesale elimination of these programs is not a prudent budget-cutting strategy. A far more prudent strategy for making the most rational budget choices is to undertake a cost-benefit analysis of federal programs. If some programs do not fare well under such analysis, then those programs should be altered or eliminated.

To replace all these conservation activities with a block grant without having carefully assessed the costs and benefits of each program represents a hasty and ill-conceived policy decision. These conservation programs form a critical component of federal energy policy, and their elimination through the block grant approach contained in this legislation will have a tremendous impact on American energy consumers, reversing almost a decade of federal commitment to energy conservation as a means of reducing oil imports.

Our second major concern is that the funding level contained in S. 1544 is woefully inadequate. This block grant replaces conservation programs authorized at $336 million -- a figure itself reflecting a severe reduction from FY81 funding levels -- with $200 million. And, under this legislation, that $200 million can be used for virtually any other energy activity, including supply, research and development, and emergency preparedness.

In addition to challenging the approach and the funding level contained in this legislation, we come to our third major concern and question the assumption that, given the inadequate funding level, low income energy assistance monies will be used to fund low income weatherization activities. Although some form of consolidation of energy assistance and weatherization may be desirable, the current funding level for the low income energy assistance program is grossly inadequate for a combined assistance/weatherization program. The need for low income energy assistance far exceeds that program's funding level.

In its 1980 report, "Low Income Energy Assistance Programs: A Profile of Need and Policy Options," the Fuel Oil Marketing Advisory Committee of the Department of Energy (FOMAC), of which CECA served as a member, found that low income consumers spend, on average, 35% of their income directly on energy and 21% of their income on household energy. In contrast, the average median income household spends only 13% of its income on energy and only 5% of its income on household energy.

Over the period 1979 to 1981, the loss in purchasing power suffered by the poor due to rising energy prices has been almost $15 billion -- about $1000 per low income household. FOMAC estimates the need for energy assistance at approximately $4 billion. Clearly the entire $1.875 billion authorization for the energy assistance program will be desperately needed to fulfill the function of that program. There would be no monies remaining with which to fund weatherization.

If the Administration succeeds in reducing the FY82 energy assistance appropriation to $1.232 billion and S. 1544 becomes law, low income energy consumers may suffer this year almost a 40% net loss in federal assistance since FY81. This loss would represent a severe erosion of the federal government's commitment to protecting the poor from the ravages of rising energy prices.

Although all of the programs repealed by S. 1544 deserve careful consideration, we would like to focus on the low income weatherization program for a moment. The tremendous need for low income weatherization services and the availability of cost/benefit data on the DOE program make the low income weatherization program a particularly useful example of the potentially disastrous impacts of this block grant legislation.

Facing the unbearable burden of high energy costs, low income individuals have done virtually all they can to cut back on their energy consumption -- short of making capital expenditures. Clearly, low income individuals lack the financial resources to invest in measures which will further reduce their energy consumption, and any marginal ability to pay for even low cost conservation measures is being further eroded by ever-increasing fuel and other commodity prices. Federal assistance is urgently needed if low income homes are to be weatherized.

With these problems and needs of low income energy consumers in mind, CECA recently undertook the first major systematic evaluation of the effectiveness of low income weatherization programs, with particular emphasis on the results achieved by the DOE weatherization program. We compared the effectiveness of the DOE program with that of demonstration programs conducted for research purposes to ascertain how the DOE program measures up to other low income as well as non-low income weatherizations.

The CECA study, "A Comprehensive Analysis of the Costs and Benefits of Low-Income Weatherization and Its Potential Relationship to Low Income Energy Assistance," assesses low income weatherization in terms of three sets of criteria: energy savings, cost effectiveness, and social benefits. The results are resoundingly positive in favor of the DOE low income weatherization program. CECA's study found that:

In terms of energy savings:

- In the DOE program, the average investment in weatherization was $968, and the reduction in energy consumption averaged 26.7%. On a dollar for dollar basis, these energy savings are as good or better than those achieved in the pure research situations.

In economic terms:

- In terms of cost: low income weatherization "delivers" energy at an average cost of $19-$40 per barrel of oil equivalent (BOE), which makes it a cheaper way to expand the nation's energy resources than any production option (compared to $51 per barrel of oil delivered; $73-109 per BOE of electricity; $41-$83 per BOE of synthetic fuels; and $23-$44 per BOE of natural gas).

- * In terms of capital and labor intensity: low income weatherization is less capital intensive and more labor intensive than any production option, thereby creating more jobs per dollar of investment and output.

- * In terms of geographic concentration: the economic activity associated with low income weatherization is evenly spread across the nation, thereby avoiding a massive transfer of wealth from energy consuming to energy producing regions of the country.

In terms of social benefits:

- * On average, weatherization results in savings to low income households of 27% in their fuel bills; this amounts to 4% of their average annual income. These savings will increase as fuel prices continue to soar.

The results achieved by low income weatherizations should not be abruptly halted by terminating the DOE program. Our examination of the DOE low income weatherization program and comparison to other policy options leads us to the compelling conclusion that the program should remain at DOE as a separate categorical program.

The DOE low income weatherization program also provides a clear example of the deficiencies in the funding level contained in S. 1544. At the FY81 rate at which DOE weatherized homes, at least $400 million will be required this year just to maintain the program at its current level of effectiveness. In FY81, DOE could and did tap previous years' unexpended funds (approximately $200 million) to supplement FY81 monies of $175 million.

In addition, the weatherization program has always received the support of CETA labor, support which will be severely curtailed in FY82 because of budget cuts. Even if the entire $200 million contained in S. 1544 were used for low income weatherization -- an extremely remote possibility -- the funding provided by this legislation would fall short of last year's funding by almost 50%.

We have focused our attention today on just one of the vital programs, which we know to be effective, which would be eliminated by S. 1544. The same kind of careful consideration of the costs and benefits of other programs which would be repealed by S. 1544 needs to be conducted. Rigorous analysis of the impact of these conservation activities' elimination, which is a likelihood under this legislation, is essential for responsible policy formulation. At the very least, low income weatherization should remain as a separate categorical program.

The federal government has a responsibility and has made a commitment to protect the poor from the burdens of artificially inflated energy prices. The states do not share this responsibility or this commitment and therefore should not be asked to shoulder the burden of providing such services as low income weatherization.

It was the federal government, under this Administration, not the states, that implemented final oil decontrol, sending yet another price shock to American energy consumers. Oil decontrol was sold to the American people and the Congress with the caveat that the federal government would protect low income people from the disproportionate burden of the resulting high energy prices.

The economic viability, the health, the very survival of low income Americans depends on that promise; it must not be broken by block grant, by budget cutting, or by any other means.

CECA applauds the Committee's efforts to examine thoroughly the consolidation of energy conservation programs. S. 1544 is an unacceptable reversal of the federal government's commitment to energy conservation and to low income energy consumers. We would be happy to work with members of the Committee so that our concerns can be incorporated intc the legislation.

Again, I appreciate the opportunity to share with the Committee the views of the Consumer Energy Council of America.

A COMPREHENSIVE ANALYSIS OF THE COSTS AND BENEFITS OF LOW INCOME WEATHERIZATION AND ITS POTENTIAL RELATIONSHIP TO LOW INCOME ENERGY ASSISTANCE

A Report by the

Consumer Energy Council of America
Research Foundation

Prepared for:

National Council of Senior Citizens
Project EnergyCare

Ellen Berman
Executive Director

Dr. Mark Cooper
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June 2, 1981

The material contained herein was developed pursuant to a grant from the Community Services Administration to the National Council of Senior Citizens. Any opinions or conclusions contained herein are solely those of the Consumer Energy Council of America Research Foundation and should not be construed as representing the opinions or policy of any agency of the United States Government.

EXECUTIVE SUMMARY

A. PURPOSE

This report by the Consumer Energy Council of America Research Foundation (CECA) contains a comprehensive evaluation of the effectiveness of low income weatherization programs, with particular emphasis on the results achieved in the low income weatherization program conducted by the U.S. Department of Energy. It is intended to ensure that policy decisions about the national approach to weatherization are based on the most complete, up-to-date and rigorous analysis of the costs and benefits of weatherization. The research conducted by CECA was assisted by a grant from the National Council of Senior Citizens Project EnergyCare.

B. RESEARCH ISSUES

Four basic sets of issues are addressed in this study:

- How much energy does low income weatherization save?
- Is low income weatherization an economically rational use of federal dollars compared to energy production options?
- Does low income weatherization accomplish the social goal of helping the poor meet their energy needs?
- How can weatherization and assistance be combined to meet those needs most effectively?

C. DATA BASE AND METHOD

In order to answer these questions, CECA gathered a large and diverse set of data and analyzed it in a systematic framework. Included in the data base are:

- * Research studies of weatherizations conducted by universities and private sector companies.
- * Research studies conducted by the National Bureau of Standards (NBS) for the Community Services Administration (CSA) of optimal weatherization of low income homes.
- * Preliminary data on a large number of low income homes weatherized in the DOE program.

Taken together, the CECA study examines the effectiveness of the weatherization of 6000 homes in 25 states. The study incorporates data on one out of every 700 homes that DOE has weatherized to date; this constitutes a large data base for program evaluation.

D. RESULTS

1. Energy Savings

CECA's review of the available evidence demonstrates that low income weatherization saves a great deal of energy and that the DOE program is doing an excellent job of achieving those savings. The analysis of the data gathered by CECA shows:

- In the DOE program, the average investment in weatherization was $968 and the reduction in energy consumption averaged 26.7%.
- In the weatherizations conducted by NBS/CSA, the average investment was $1742 and the reduction in energy consumption was 30.5%.
- In the weatherizations performed on non-low income homes by research institutions and private companies, the average investment was $1132 and the reduction in energy consumption was 31%.

2. The Economics of Weatherization

Based on the comparison of key economic characteristics of weatherization and energy production options, it is clear that weatherization is an attractive use of federal energy dollars.

- In terms of cost: Low income weatherization "delivers" energy at an average cost of $19-$40 per barrel of oil equivalent (BOE), which makes it a cheaper way to expand the nation's energy resources than any production option (e.g., $51/bbl of oil delivered; $73-$109/BOE of electricity; $41-$83/BOE of synthetic fuels; and $23-$44/BOE natural gas).
- In terms of capital and labor intensity: Low income weatherization is less capital intensive and more labor intensive than any production option, thereby creating more jobs per dollar of investment and output.
- In terms of geographic concentration: The economic activity associated with low income weatherization is evenly spread across the nation, thereby avoiding a massive transfer of funds from energy consuming to energy producing regions of the country.

3. Social Impacts

CECA's analysis demonstrates that low income weatherization has a significant impact on helping the poor meet their needs.

- On average, weatherization results in savings to low income households of 27% in their fuel bills; this amounts to 4% of their average annual income.

4. Combining Weatherization and Assistance

A model developed by CECA for combining weatherization and assistance programs shows that a combined approach is preferable to an assistance-only approach because it is more cost effective in delivering energy services to the poor. The combined approach makes it possible either to provide more assistance and weatherization to low income households or to reduce Treasury expenditures. CECA's model also minimizes potential short-term disruptions that could result from converting assistance monies into weatherization. Compared to the assistance-only approach, CECA's model shows that, for the combined approach:

- The increase in real benefits to the low income population could range from 28% to 68%, with the average reduction in energy consumption per household ranging from 11% to 38%, depending on the assumptions used.
- Alternatively, the reduction in Treasury expenditures could range from 22% to 76%, with an average reduction in energy consumption per household between 11% and 27%.

- In each year, all households would receive at least 78% of the benefits they would have received under an assistance-only approach.
- All households receive more benefits within 3-5 years than they would have under an assistance-only approach.
- No household receives more than 5% more in benefits than any other household.

TABLE OF CONTENTS

Chapter Page

EXECUTIVE SUMMARY ES-1

I. AN INTRODUCTION TO THE CONSUMER ENERGY COUNCIL OF AMERICA'S ANALYSIS OF WEATHERIZATION PROGRAMS 1

  A. The Need for a Study of Low Income Weatherizations 1

  B. The Questions Posed to the Low Income Weatherization Program 3

II. ENERGY SAVINGS OF WEATHERIZATION 7

  A. Introduction 7

  B. Methodology 7

    1. The Data 7

      a. Introduction 7

      b. Sources of the Data 9

        1. Non-Low Income Field Experiments 9

        2. NBS/CSA Low Income Experiments 11

        3. DOE Low Income Weatherizations 13

  C. Basic Conclusions about Energy Savings . . 15

  D. The Basis for the Estimates of Energy Savings 16

    1. Non-Low Income 18

    2. NBS/CSA Weatherizations 20

    3. DOE Weatherizations 24

  E. Understanding the Complexity of Weatherization 26

1. General Reflections on Variability . . . 26
2. Specific Causes of Variability in Weatherization Results 30
    a. The Choice of Conservation Measures 30
    b. Research Methodologies 32
    c. Differences in Administration . . . 32

F. Conclusion 34

III. THE ECONOMICS OF WEATHERIZATION 36

A. Introduction 36

B. Methodology 36

1. The Accounting Method for Conservation Costs 36
    a. Basic Rationale 36
    b. Choosing Economic Parameters 37
    c. Maintenance Costs 38
2. A Note on the Perception of Costs . . . 40

C. Results 41

1. Basic Conclusions about the Cost of Conserved Energy 42
2. Understanding the Complexity of Weatherization 44
    a. General Reflections on Variability 44
    b. Specific Causes of Variability . . . 46
        1. Climate 46
        2. Choice of Conservation Measures 47
        3. Other Causes of Variability . . 48

D. Comparisons with Other Energy Options . . . 49
  1. Introduction 49
  2. Methodology 50
    a. Capital Intensity 50
    b. Labor Intensity 50
    c. Geographic Concentration 51
  3. Results 52
E. Conclusion 54

IV. THE SOCIAL IMPACT OF THE WEATHERIZATION PROGRAM 56

A. Introduction 56
B. Reduction of Energy Bills As a Result of Weatherization 57
  1. Methodology 57
  2. Results 59
C. Potential Relationship between Weatherization and Energy Assistance . . . 61
  1. Methodology 61
    a. Principles 61
    b. Assumptions and Cases 64
      1. Inflation 65
        a. Energy Prices 65
        b. Weatherization 65
      2. Energy Savings 66
        a. Low Energy Savings 66
        b. High Energy Savings 68

3. Indexing of Payments 68
    a. Constant Real 68
    b. Declining Real 69
4. Distributing Social Gains . . . 69
    a. The Plowback Option 69
    b. Reversion to Treasury Option 70

2. Results 71
    a. Basic Conclusions 71
    b. The Process of Combining Weatherization and Assistance . . . 78

D. Conclusion 88

APPENDICES

Appendix A: THE ECONOMIC CHARACTERISTICS OF VARIOUS ENERGY OPTIONS 90

Appendix B: ADDITIONAL DATA 102

ENDNOTES 106

LIST OF TABLES

Table | | Page
1. Basic Characteristics of Field Weatherization 10

2. Approximate Energy Savings at Various Levels of Investment in Weatherization 17

3. Estimates of Energy Savings at Specific Levels of Investment in Weatherization Using Various Predicting Equations 27

4. Average Energy Savings at Various Levels of Investment in Weatherization 29

5. Cost of Conserved Energy 43

6. Average Cost of Conserved Energy at Various Levels of Investment in Weatherization 45

7. Economic Characteristics of Energy Options 53

8. Estimating the Impact of Weatherization in Reducing the Energy Burdens of the Poor 60

9. Two Sequences of Conservation Packages 67

10. CECA's Assumptions Leading to Eight Scenarios for a Combined Weatherization/Assistance Program . . . 72

11. The Effects of Alternative Approaches to Weatherization and Assistance Over a Ten Year Period . . . 74

12. Combined Weatherization/Assistance Approach Compared to an Assistance-Only Approach 76

Table Page

13. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming Low Energy Savings, Constant Real Payments, and Reversion to the Treasury Option). . . . 79

14. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming Low Energy Savings, Constant Real Payments, and Plowback into Weatherization Option) . . 80

15. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming Low Energy Savings, Declining Real Payments, and Reversion to Treasury Option). 81

16. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming Low Energy Savings, Declining Real Payments, and Plowback into Weatherization Option) . . 82

17. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming High Energy Savings, Constant Real Payments, and Reversion to Treasury Option) 83

18. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming High Energy Savings, Constant Real Payments, and Plowback into Weatherization Option) . . 84

Table Page

19. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming High Energy Savings, Declining Real Payments, and Reversion to Treasury Option) 85

20. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming High Energy Savings, Declining Real Payments, and Plowback into Weatherization Option) 86

A-1. Cost of Producing and Conserving Energy . . 91

A-2. Estimates of Capital Intensity 94

A-3. The Labor Intensity of Energy Options . . . 97

A-4. Geographic Concentration of Energy Sources. 99

B-1. Characteristics of Additional DOE Weatherizations 103

F-1. Energy Utilized to Weatherize the Average House in the NBS/CSA Studies 113

F-2. CECA's Hypothetical Model of Combined Weatherization and Assistance Program Compared to Assistance Only Program (Assuming High Energy Savings, Constant Real Payments, and Plowback into Weatherization Option and Adding a Fourth Stage of Weatherization) 116

LIST OF FIGURES

Figure Page

1. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (Non-low Income Weatherizations) 19

2. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (NBS/CSA Weatherizations) 21

3. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (Adjusted Curves) 23

4. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (DOE Weatherizations) 25

5. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (Low Income, HVAC Cases) 33

B-1. The Relationship between Percent Energy Savings and the Amount Invested in Weatherization (Based on nineteen sites) 104

CHAPTER I

AN INTRODUCTION TO THE CONSUMER ENERGY COUNCIL OF AMERICA'S ANALYSIS OF WEATHERIZATION PROGRAMS

A. THE NEED FOR A STUDY OF LOW INCOME WEATHERIZATION

Since the Arab oil embargo, energy policy and especially the federal role in energy policy have been major points of public debate. 1/ The recent change in Administrations, embodying a potentially dramatic shift in both policy and the federal role, ensures that the debate will continue and remain heated. In the past, policy decisions were made on the basis of theory and guesswork. However, over the course of the last decade, the nation has built up a large stock of experiences with a variety of policies and programs which should provide a basis for more informed debate and decision-making. Unfortunately, policy-makers and policy analysts alike have a tendency simply to continue to spin out new policies without looking back and carefully evaluating the results of prior decisions. The change in Administrations could have one of two effects. It could reinforce this tendency, as the desire to start anew overpowers any inclination to assess the past or, alternatively, it could lead to a more open and positive evaluation of options, since there is no inherent commitment to past approaches.

This report deals with one particular area of energy policy — low income weatherization — which has been especially buffeted by policy-makers without much effort to understand the impact or effectiveness of the program. To date, almost three quarters of a million low income homes have been weatherized, and the administrative/organizational capacity has been developed to weatherize an additional half million homes each year. 2/ Thus, the potential benefits to both the nation — in terms of energy savings — and to the low income population — in terms of meeting its energy needs -- are large. In spite of these potential benefits, the program is faced with termination or serious cutback. The complaint is made that too little is known about the weatherization program's energy savings, benefits to the low income population and costs to continue to devote resources to it.

In this report the Consumer Energy Council of America Research Foundation (CECA), a non-profit institution involved in energy policy analysis, endeavors to fill the information gap by undertaking a comprehensive review of the low income weatherization program. CECA has compiled a large and diverse set of data on actual weatherizations and organized that data into a systematic framework to assess the results of the program. Project EnergyCare, sponsored by the National Council of Senior Citizens in cooperation with the Community Services Administration (CSA), has provided support for the research.

No similar study has been undertaken in the past and we believe that such a study is vitally needed if sound, informed decision-making is to take place. We believe that the potential benefits of the program to the nation and the importance of the program to the affected low income population are so great that decisions must be based on as much information about past experience as possible.

B. THE QUESTIONS POSED TO THE LOW INCOME WEATHERIZATION PROGRAM

Virtually every major study of national energy policy conducted in the last several years -- whether by government 3/, universities 4/ or private research organizations 5/ -- has concluded that saving energy by improving the thermal efficiency of existing buildings can make a major contribution to national energy resources. These studies also point out that investment in such conservation is extremely cost effective. Unfortunately, these studies have frequently been based on engineering calculations and macroeconomic models rather than actual practice, thereby leaving the reader with strong doubts about how effective conservation can actually be. Can buildings, in fact, be modified to achieve these savings at economically attractive costs?

Given the general tendency to belittle the effectiveness of government programs, such doubts may be especially strong when considering large scale federal efforts to achieve conservation. The low income weatherization program has been particularly subject to these doubts. In fact, low income weatherization is frequently questioned from three different points of view:

First, questions are raised about the basic operation of the program from the administrative point of view of achieving program goals. Does it achieve the expected energy savings at specific levels of expenditure? Second, questions are raised about the program from an economic point of view. Is it economically rational? Is it a sound federal investment as part of an energy/economic program? Third, questions are raised about weatherization as a social program. Does it actually accomplish the social goal of alleviating the burden that rising energy prices place on the poor?

Most federal programs are typically subject to the first set of questions -- the administrative efficiency questions. And most federal programs face either the second or the third set of questions. They must pass muster either as a social program or an economic program if they are to receive federal support. However, low income weatherization is usually asked to meet the test of administrative efficiency and both the test of an economic program and a social program.

In large measure, this is the case because the program has been billed in that way. In order to ensure political support, it has been defined as a mechanism for simultaneously assisting the low income population in meeting its energy needs (a social goal) and making a cost-effective contribution towards helping solve the nation's energy problems (an economic goal). As one of the more influential documents in the battle over low income energy programs puts it:

> The benefits of conservation through weatherization can be viewed from both the individual and the societal level ....
>
> Investment in weatherization constitutes a sound social and energy program ....
>
> At these levels of savings, weatherization is a cheaper source of energy than any available production option ....
>
> Thus, in addition to offering a fundamental solution to the problem of providing energy for the low income population, they (weatherization and solarization programs) will have a positive, balanced economic effect. 6/

This is a tall order to ask of any program, but its supporters and friends have, to a considerable degree, defined the terms of the debate. Thus, they should not be surprised when tough questions relating to the program are raised.7/

In addition to these basic sets of questions posed to the program, a fourth set of questions has recently been added. What should the relationship between low income energy assistance and low income weatherization be? Those involved in helping the low income population meet its energy needs have always recognized the rationality of a link between the two programs. However, lacking firm evidence on the performance of the weatherization program, there has been a reluctance to trade the certain benefits of assistance for the potential, but unknown, benefits of weatherization. As decisions about how to meet the energy needs of the low income population shift to the local level, the need for a clear, comprehensive understanding of the effectiveness of the weatherization program and its potential relationship to assistance becomes critical.

In this report, the Consumer Energy Council of America Research Foundation addresses each of these four sets of questions -- administrative, social, economic and the weatherization/assistance linkage. The report analyzes available evidence from the actual field experiences of both low income and non-low income weatherization programs and evaluates them on a uniform accounting basis. It takes a detailed look at the energy savings and costs of weatherization under a variety of circumstances in order to assess not only what the low income program has done, but also what it can be reasonably expected to do. It then analyzes the economics of weatherization compared to energy production options. It also assesses the program's effectiveness in helping to meet the energy needs of the poor. Finally, it examines weatherization combined with assistance in a comprehensive program for meeting the energy needs of the poor.

CHAPTER II

ENERGY SAVINGS OF WEATHERIZATION

A. INTRODUCTION

The first set of questions addressed in CECA's analysis deals with the energy savings that the low income weatherization program achieves. We will begin by examining the most basic question posed to the program, "If we spend $X on weatherization, what percentage energy savings can we expect?" After answering that question in simple terms, we show how we arrived at the answer. We then examine several, more complex issues, such as "What causes variability in the results achieved by various weatherization programs?"

B. METHODOLOGY

1. The Data

a. Introduction

In order to conduct the evaluation of the low income weatherization program, CECA has utilized three sources of data on the performance of weatherizations in the field:

1. The first source of data is drawn from field experiments which involved non-low income housing. By and large, these studies are based on rigorous methodologies and carefully monitored data. They have been in-

cluded in order to establish whether, under controlled circumstances, the actual performance of weatherization features (i.e., energy conservation measures) bears out the conclusions of theoretical engineering studies.

2. The second source of data is drawn from carefully monitored large-scale research-oriented low income weatherization programs. These have been included in order to establish whether large-scale low income projects can achieve actual improvement in energy efficiency. However, because these are special programs which were conducted with research in mind, they do not give a definitive answer to the question of whether "typical" low income weatherization projects achieve improvements in energy efficiency.

3. Thus, a third source of data is included -- follow up studies of "typical" DOE weatherization projects. These can be analyzed to address directly the question of whether the general program is saving energy and at what cost. However, we believe that it is important to analyze the other two sets of data first in order to have a benchmark against which to evaluate the general low income weatherization program. In short, it is important to know what can be accomplished under carefully controlled circumstances in order to assess fully the actual performance of the "typical" program. We need to establish a set of parameters against which

to judge the general low income weatherization program.[8] We focus on the DOE program because it is the primary vehicle for weatherizing the homes of the low income population.

b. Sources of the Data

Table 1 presents some basic information about each of these groups of studies. We will briefly describe the data base for each of the groups.

1. Non-Low Income Field Experiments

The group of studies we refer to as "non-low income field experiments" (non-low income, for short) were conducted by a number of research organizations at sites around the country.[9] The research organizations are a diverse lot, including a university, a government agency, a public utility and a private company. The sites are not very diverse in terms of climate, however, being concentrated in moderate climate zones.

The number of units weatherized and studied at each site varies from one house to over four thousand houses. Moreover, there is a great diversity in the approach to weatherization. At the low cost end, we find very simple weatherizations generally involving only reduction of infiltration (i.e., weatherstripping and caulking) and some reduction in conduction heat loss (attic insulation and storm windows, but not wall insulation). At the high cost end, we find very fastidious "complete retrofits." These would include thorough infiltration reduction (including the pressurization of houses to find and stop air leakage), extensive efforts to reduce conduction losses (including wall insulation and thorough insulation of ceilings) and

TABLE 1

BASIC CHARACTERISTICS OF FIELD WEATHERIZATIONS

Location	Research Organization	# of Units	$ Invested Per Unit ($ 1980)	Energy Savings (in %) 1/
NON-LOW INCOME WEATHERIZATIONS				
Twin Rivers, NJ	Princeton University	1	3000	67
Bowman House, MD	National Bureau of Standards	1	2840	59
Freehold, NJ	Princeton University	5	220	21
Freehold, NJ	Princeton University	5	260	17
Toms River, NJ	Princeton University	6	200	13
Toms River, NJ	Princeton University	6	800	40
Denver, CO	Johns Manville	30	270	8
Oregon	Pacific Power and Light	4318	1467	23
Average			1132	31
NBS/CSA WEATHERIZATIONS				
No HVAC Modifications				
Atlanta, GA	National Bureau of Standards	10	961	24
Charleston, SC	National Bureau of Standards	14	1096	27
Oakland, CA	National Bureau of Standards	8	283	7
St. Louis, MO	National Bureau of Standards	20	1927	8
Minneapolis, MN	National Bureau of Standards	17	1927	22
HVAC Modifications				
Washington, DC	National Bureau of Standards	4	3214	33
Tacoma, WA	National Bureau of Standards	10	1957	47
Easton, PA	National Bureau of Standards	12	1027	26
Chicago, IL	National Bureau of Standards	16	2378	41
Colorado Springs, CO	National Bureau of Standards	17	2037	50
Portland, ME	National Bureau of Standards	12	2291	40
Fargo, ND	National Bureau of Standards	13	1802	41
Average			1742	30.5
DOE WEATHERIZATIONS				
No HVAC Modifications				
Luzerne, PA	Local	30	900	36
Minnesota	Local	19	945	8
Spokane, WA	Local	19	1191	33
Kentucky	Local	239	810	10
Virginia	Local	76	1047	32
Utah	Local	43	882	28
Michigan	Local	57	834	40
Duluth, MN	Local	10	1000	34
Wisconsin (78)	Local	14	643	21
Wisconsin (79)	Local	13	1163	20
HVAC Modifications				
Indiana	Local	31	1427	32
Average			986	26.7

1/ Quantities of energy saved, in absolute terms, are listed in Table 5.

modification of the heating system (HVAC) to improve its efficiency.

The two classic cases of "complete retrofits," Twin Rivers, conducted by Princeton University, and the Bowman House, conducted by the National Bureau of Standards, show that it is possible to save a great deal of energy through weatherization -- as much as 60-70%. These two cases also show that saving this amount of energy is quite expensive, costing as much as $3,000 per unit in 1980 dollars. As a result, the non-low income studies establish the full range of possible energy savings that can be achieved through weatherization. Therefore, they are a useful benchmark.

It should be kept in mind, however, that the weatherizations were not done on low income houses. Therefore, the houses are almost certain to have been in a better state of repair and considerably larger than low income houses.

2. NBS/CSA Low Income Experiments

The group of studies referred to as "carefully monitored, large-scale, research-oriented low income weatherizations" (NBS/CSA weatherizations, for short) were conducted by the National Bureau of Standards (NBS) in conjunction with and funded by the Community Services Administration (CSA).10/

The number of units weatherized and studied at twelve sites varied from four to twenty. The weatherization work was done by typical CSA/low income agencies. NBS monitored costs and benefits closely, specified (not always successfully) the conservation measures to be used and exercised some selectivity in choosing the houses to be included in the study. That is, the weatherization tended to be carried further than in the typical low income program (especially in the use of wall insulation and modifications to the heating system, which are very infrequent in the DOE program). The weatherizations were also not performed on housing that was extremely run down, so that better monitoring and instrumentation could be achieved. The houses are, however, fairly typical of low income housing in size, averaging about 1000 square feet.

The twelve research sites cover a wide range of climate zones -- the sites having been chosen to reflect the full climatic diversity that the low income program faces. A small number of houses were studied at each site and in most cases a small control group existed. For the purposes of this report, the control group was excluded.

The weatherizations tended to be fairly uniform in cost and the types of conservation measures installed -- except that there is a clear difference in cost between those that do not include modifications to the heating, ventilating and air conditioning (HVAC) systems and those that do. Most of the weatherizations went beyond simple low cost features and most stopped far short of the extremely fastidious "complete retrofits." In fact, the NBS effort attempted to "optimize" the weatherization. That is, given certain assumptions about cost, energy prices, expected energy savings, and economic investment criteria a package was chosen to arrive at the economically justified level of "minimum" energy usage.

Thus, the NBS studies fall someplace between a field experiment and the routine practice of a low income weatherization program. As such, they serve as a bridge between pure research situations and actual practice situations, a bridge that assists us in understanding where efficiency and/or performance might be lost and where improvements might be made.

3. DOE Low Income Weatherizations

Finally, the group of studies we refer to as "follow-up studies of DOE low income weatherization projects" (DOE weatherizations, for short) involve typical low income weatherization efforts where research was not a major consideration. A number of different types of data are included in this group. Some data are taken from ongoing studies being conducted by local contractors for a variety of federal and local agencies.11/ These studies are in various states of execution and review and were made available to CECA through the good will of the researchers. By and large, they are being conducted by locally-based research contractors for community action agencies. Several other studies have already been completed and released and CECA simply reanalyzed the data. 12/ Finally, several sets of data were compiled by local agencies at CECA's request. 13/

All of the studies of DOE's weatherizations involve a methodology in which the effectiveness of the weatherizations was assessed after the fact. That is, the weatherizations were executed without consideration for research. At some point after the weatherization was completed, an effort was made to collect data on energy usage before and after the weatherization, as well as data on the cost of the weatherization. Therefore, the performance of the weatherization was "uncontaminated" by research considerations.

The eleven DOE sites on which we have been able to compile data constitute a group of studies that covers a fairly wide range of climates (excluding only the warmest climate zone). The number of units weatherized and studied per site varies from 13 to 239. The amount invested in weatherization is concentrated around $1,000. This is typical of the general weatherization program. Most weatherizations do not include wall insulation or HVAC modifications (although one site where the latter were performed has been included). The weatherization projects appear fairly typical in terms of the labor used and the condition and size of the housing.

As is the case with all social research, a tradeoff exists between methodological rigor and efforts to avoid contaminating the project by the interference of research procedures. 14/ The follow-up studies of the DOE weatherizations probably constitute a good representation of the general DOE weatherization program, but they suffer from an unevenness in methodology, uncertainty about sampling procedures and questions about the validity of the data. However, in spite of the fact that the methodologies in these available studies are less rigorous than we would like, the results seem sufficiently consistent across a large number of cases to permit us to proceed comfortably with the analysis. Compared to the other data sources reviewed by CECA, the DOE data sources seem quite credible indeed. Data on an additional eight sites which became available after the analysis was concluded reaffirm our confidence in the data (see Appendix B).

In essence, CECA has endeavored to compile a large and diverse data base, thus creating a body of evidence in which we can place considerable confidence. Our approach has been to take the data as it is and rely on the size and diversity of the base to offset any inconsistencies in methodology.

C. BASIC CONCLUSIONS ABOUT ENERGY SAVINGS

CECA's review of the available evidence strongly suggests that low income weatherization saves a great deal of energy and the DOE program is doing an excellent job of achieving those energy savings. When we examine the savings that the DOE program achieves in comparison to the savings achieved by the weatherization of both non-low income homes and of other low income weatherizations, we find that, on a dollar-for-dollar basis, the DOE program saves as much, if not more, energy. And, as the analysis in the next chapter shows, it is also cost effective.

This basic conclusion can be extracted from Table 1 above. The average investment in weatherization in the DOE projects reviewed by CECA was $986. The average energy savings were 26.7%. In the weatherizations conducted by NBS/CSA on low income homes, the average investment was $1132 and energy savings were 31%. Thus, the DOE program appears to be right on target.

The results from the various programs can be combined to calculate systematically the relationship between the amount invested in weatherization and the energy savings that can be expected. Table 2 shows the results of those calculations. At $1000 invested, for example, we have a high estimate of 26% energy savings and a low estimate of 20% energy savings, with a mean of 23%. Thus, the range of estimates from all the studies examined is quite narrow and we can have considerable confidence in these estimates.

D. THE BASIS FOR THE ESTIMATES OF ENERGY SAVINGS

Since the amount of energy saved is the most fundamental question posed to the weatherization program

TABLE 2

APPROXIMATE ENERGY SAVINGS AT VARIOUS LEVELS OF INVESTMENT IN WEATHERIZATION [1]

Level of Investment (in Dollars)	Estimate of Energy Savings (% reduction)		Best Estimate of Energy Savings (% reduction)
	High	Low	Mean of High + Low
400	19	11	15
600	21	15	18
800	23	18	20.5
1000	26	20	23
1200	28	23	25.5
1400	30	25	27.5
1600	33	27	30
1800	36	29	32.5
2000	38	31	34.5

---

[1] High and low estimates derived from the various studies. See text, pp. 18-27.

and since we believe that the answer is overwhelmingly positive, let us review exactly how we arrived at this conclusion. The approach used was to take the three sets of data available to CECA and derive an estimate of the relationship between dollars invested in weatherization of the homes and the energy savings that resulted. As each data set was reviewed, we compared the resulting relationship with previous estimates and made adjustments, where necessary.

1. Non-Low Income

We began by examining the non-low income data. Figure 1 plots the relationship between the dollar investment in weatherization and percent energy savings. The data points in Figure 1 exhibit a common and very basic relationship which is predicted by classical economics. That is, the relationship exhibits declining marginal returns. The initial conservation measures save larger percentages of energy per dollar of investment than the subsequent conservation measures.

Technically speaking, we can fit a "power curve" to the set of data points -- a curve of the form $y = ax^b$. This is accomplished by taking the logarithm of both sides of the equation and then utilizing the linear least squares best fit line. The equation that results from the non-low income data is:

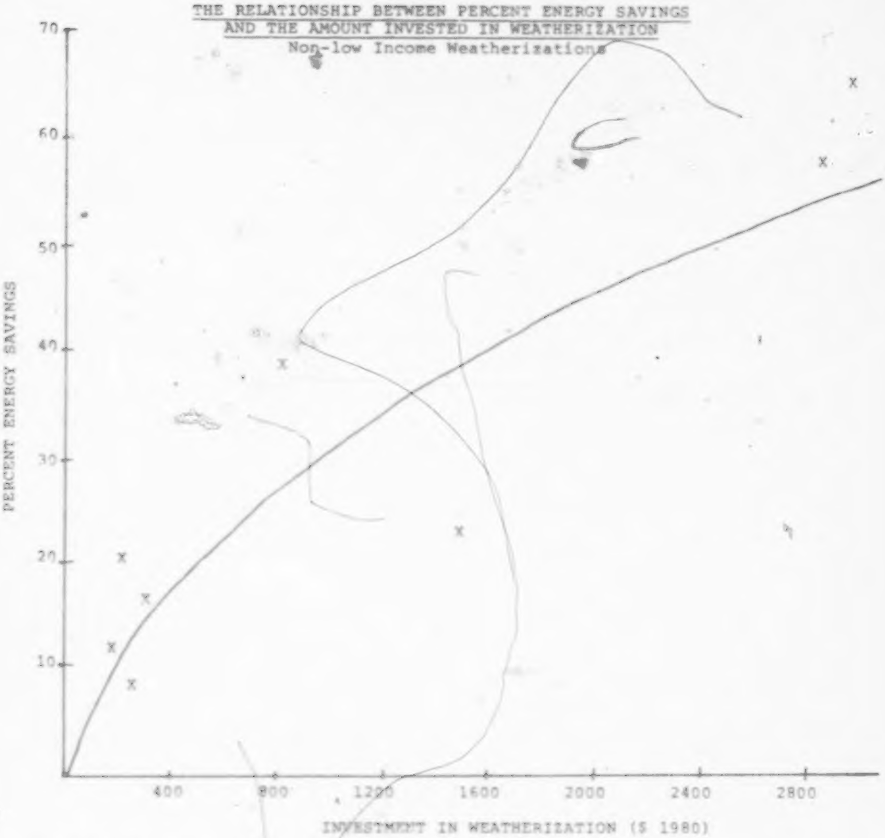
$$y = .735x^{.54}$$

where y = percent energy savings; x = dollars invested.

FIGURE 1

THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION

Non-low Income Weatherizations



X = Non-low income data points

This equation is a good fit, with the correlation coefficient being quite high (r = .85).

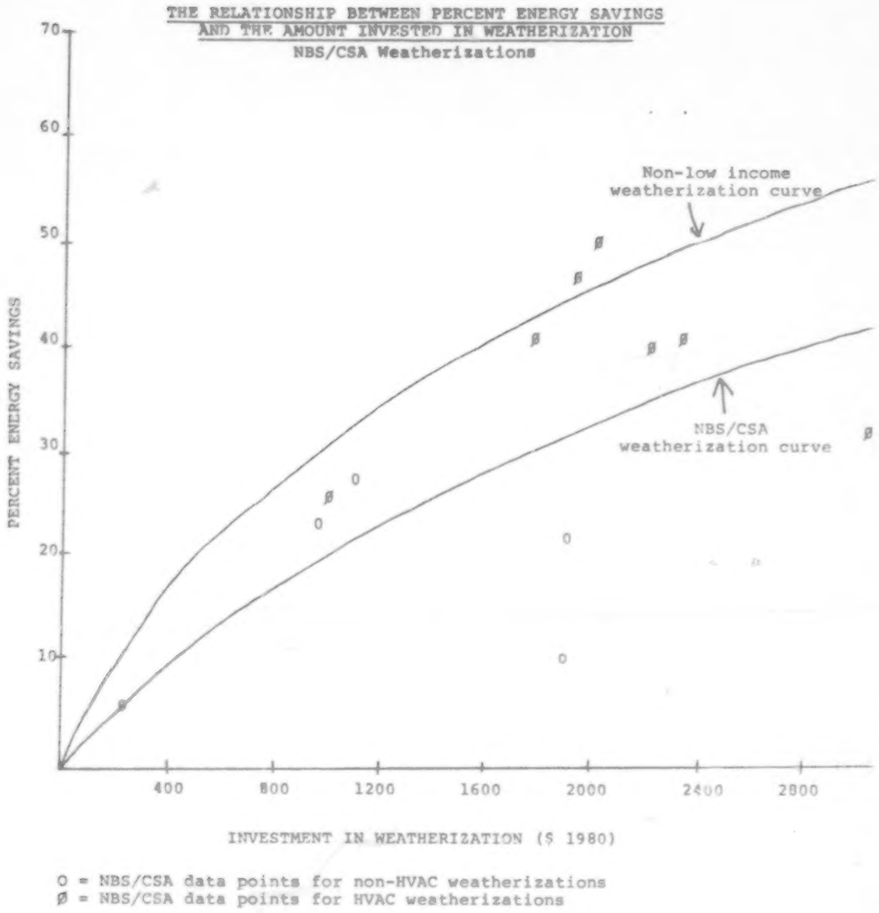
Because the relationship is quite clear and because these results have been generated by a series of studies conducted by researchers, who are careful about doing a good job in the interest of research, and/or private sector companies motivated by profits to do a good job, this curve can be considered a good baseline against which to evaluate the low income weatherization results. It is interesting to note that the research results depicted in Figure 1 are fairly close to those predicted by theoretical engineering calculations without field experimentation.

2. NBS/CSA Weatherizations

The next step is to compare the NBS/CSA results to those achieved by non-low income weatherizations. These results are depicted in Figure 2. Again, the data seem to exhibit the expected relationship (declining marginal returns) and the relationship is reasonably strong (r = .65).

It can be seen in Figure 2 that the NBS/CSA curve falls slightly below the non-low income curve, meaning that, at any given level of investment, somewhat less energy savings result. We hypothesized that the NBS/CSA curve was below the non-low income curve partly because two of the non-low income cases involved "complete retrofits," which carried the weatherization to extreme lengths.

FIGURE 2



THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION
NBS/CSA Weatherizations

These cost a great deal more than most low income weatherizations and had the effect of pulling up the energy savings curve. In fact, it can be argued that the philosophy and general approach utilized in those two cases (saving as much energy as possible regardless of the amount spent) is completely different from the approach utilized in the DOE low income weatherization program (where strict limits are set on spending). Therefore, it can be argued that these two cases are not relevant to an evaluation of the low income programs. Consequently, we then recalculated the non-low income curve excluding these two complete retrofits. As Figure 3 shows, the resulting curve is extremely close to the NBS/CSA curve.

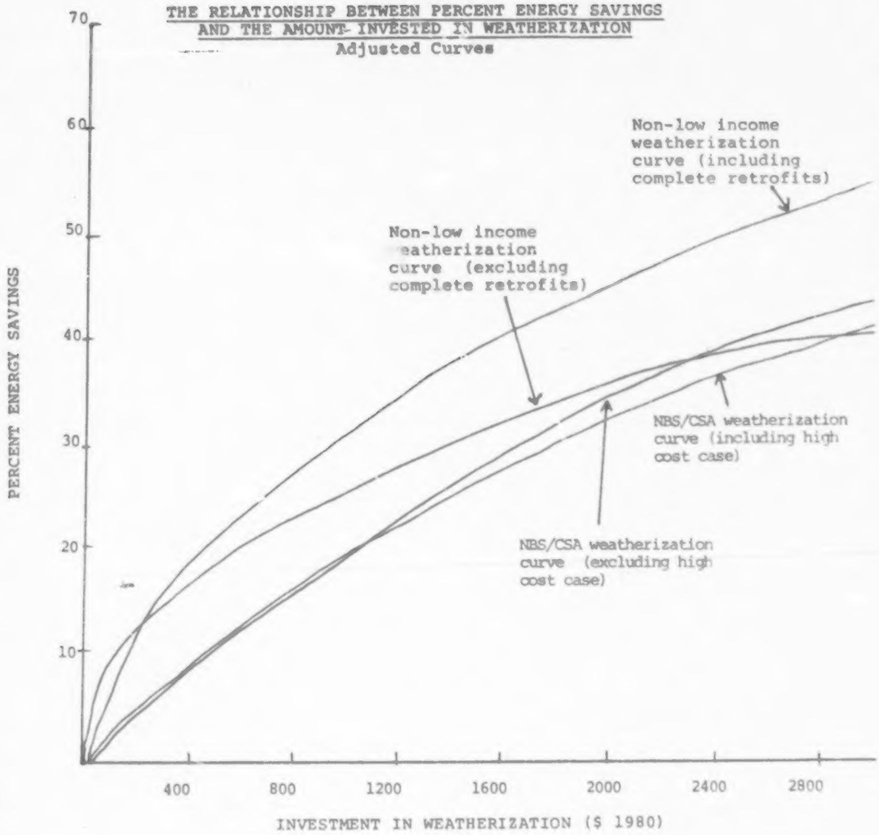
In a similar vein, we might also exclude the site with the extremely high average cost ($3214) from the NBS/CSA studies, arguing that the DOE program never allows costs that high. As Figure 3 shows, this has the effect of shifting the NBS/CSA curve even closer to the non-low income curve (excluding complete retrofits).

Obviously, the exclusion of either the uncommon complete retrofits from the non-low income calculations or the aberrationally high cost site from the NBS/CSA calculations -- for the purpose of evaluating the DOE low income program -- involves a subjective judgment. We believe the judgment is appropriate. However, throughout the remainder of the study we will report our calculations

FIGURE 3

THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION

Adjusted Curves



both including and excluding these particular cases, so that those who disagree with our judgments will have a basis for drawing their own conclusions.

3. DOE Weatherizations

The final step in determining energy savings is to plot the DOE data points and see how they compare with the other data sets. Figure 4 shows that the DOE results are quite consistent with those of the other studies. The DOE data points yield a curve that lies literally in the middle of the earlier sets of results. To put this another way, five of the eleven DOE cases fall between the non-low income curve (including complete retrofits) and either of the NBS/CSA curves. One other point is quite close to the NBS/CSA curve, while three points fall above the range and two points below it.

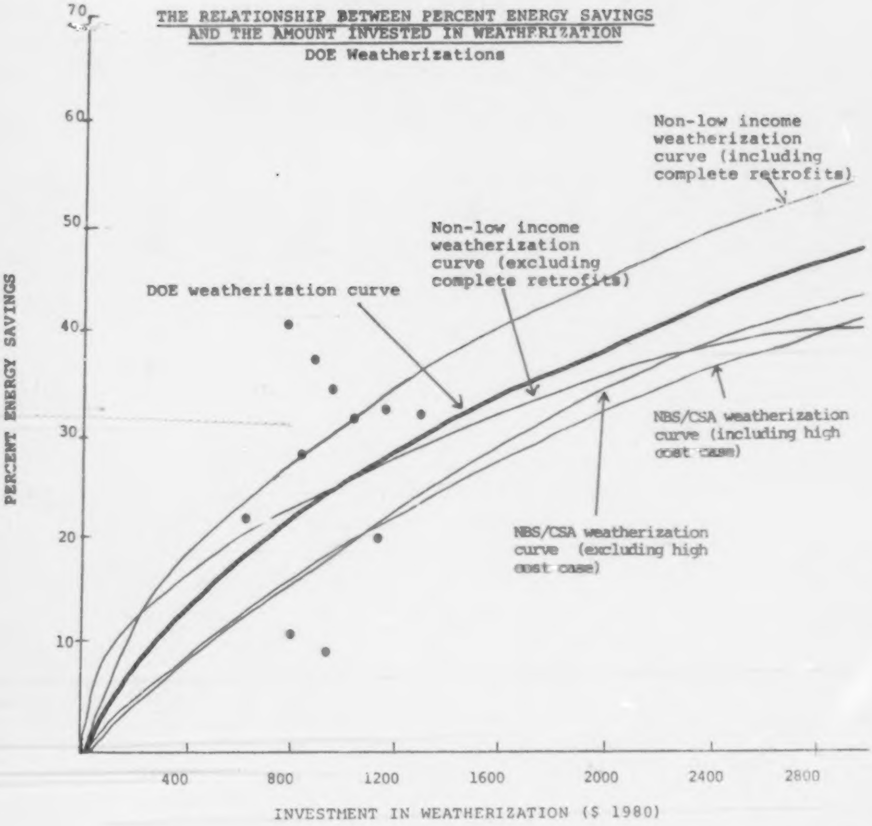
If we consider the non-low income curve excluding complete retrofits and either of the NBS/CSA curves, we find that the DOE curve is the highest -- suggesting the highest savings per dollar invested. In fact, eight of the eleven DOE points fall above the non-low income curve excluding complete retrofits and the NBS/CSA curves. This would appear to be a function of the condition of the housing prior to weatherization. We will deal with this issue in the next section (see p. 30).

In spite of the fact that the DOE results are high, it is also clear in Figure 4 that there is a great

FIGURE 4

THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION

DOE Weatherizations



● = DOE data points

deal of "variability" in the results. That is, the DOE data points are quite scattered. We will deal with this issue in the next section as well.

Here we stress the consistency of the results. The results achieved by the DOE program compare quite favorably with those achieved in the research situations. The range of results predicted by the estimating equations is quite narrow. No matter which equations (curves) we choose as the basis for our estimates, at the levels of investment typical of the DOE program -- $400 to $1600 -- the largest difference between the high and low estimates is only 12 percentage points (see Table 3). Moreover, the DOE estimates tend to be in the middle of the range of estimates. When compared to the highest estimates, the DOE results are quite good, ranging from 78% to 87% of the highest estimates, i.e., non-low income cases including complete retrofits. There seems to be no doubt about the fact that low income weatherization saves energy and that the DOE program is doing a good job of achieving those savings.

E. UNDERSTANDING THE COMPLEXITY OF WEATHERIZATION

1. General Reflections on Variability

In describing the basic results of the weatherization program, we have noted that variability in the results exists. That is, at similar levels of investment we

TABLE 3

ESTIMATES OF ENERGY SAVINGS AT SPECIFIC LEVELS OF INVESTMENT IN WEATHERIZATION USING VARIOUS PREDICTING EQUATIONS

(% Reduction)

Invest-ment ($)	Non-Low Income		NBS/CSA		DOE	
	All Cases 1/	Excluding Complete Retrofit 2/	All Cases 3/	Excluding High Cost Case 4/	All Cases 5/	Excluding HVAC Case 6/
400	18.9	18.2	11.2	10.7	13.8	10.0
600	23.6	21.4	14.5	14.2	17.8	14.0
800	27.6	24.0	17.5	17.4	21.4	17.7
1000	31.2	26.3	20.2	20.3	24.6	21.3
1200	34.4	28.3	22.7	23.0	27.6	24.8
1400	37.5	30.1	25.0	25.6	30.4	28.2
1600	40.3	31.8	27.2	28.1	33.0	31.5

1/ $y = .724x^{.54}$ $(r = .85)$

2/ $y = 1.62x^{.4}$ $(r = .60)$

3/ $y = .243.^{.64}$ $(r = .64)$

4/ $y = .169x^{.69}$ $(r = .64)$

5/ $y = .322x^{.63}$ $(r = .25)$

6/ $y = .069x^{.83}$ $(r = .22)$

observed divergent percentage energy savings. From an administrative point of view, variability in results can be troubling because it could indicate poor quality control. In this section, we examine the variability that CECA observed in all three data sets, in an attempt to understand what causes it and what it means from the point of view of the administration of low income weatherization DOE programs.

The conclusion we reach is that the variability in the results is, to a considerable degree, not a negative reflection on the administration of the DOE program as such. There is as much, or more, variability in the non-DOE results -- conducted for research purposes -- as in the DOE weatherizations -- not conducted for research purposes. Furthermore, we can attribute a good part of the variability not to workmanship or adminstrative controls, but rather to choices about which conservation measures to include in the weatherization package.

Table 4 brings out this point. We have calculated a simple measure of variability -- the coefficient of variation (the standard deviation divided by the mean) -- for each of the sets of studies and for certain subgroups within each of the sets of studies.

The important comparisons are between the various subgroupings.15/ The point to be underlined is that, in the range of investments that typify the DOE low income

TABLE 4

AVERAGE ENERGY SAVINGS AT VARIOUS LEVELS OF INVESTMENT IN WEATHERIZATION

Type of Weatherization	Avg. Investment ($)	Average Percent Energy Savings ($\bar{X}$)	Standard Deviation (Sd)	Coefficient of Variation (CV = Sd/$\bar{X}$)
Non-Low Income				
All	1132	31.00	20.50	.66
Low Cost	238	14.75	4.82	.33
Moderate Cost	1134	31.50	8.50	.27
High Cost	2925	63.00	4.00	.06
NBS/CSA				
All	1742	30.50	13.46	.44
Low Cost	842	21.00	8.20	.39
Moderate Cost	1903	29.50	15.50	.53
High Cost	2480	41.00	6.00	.15
No HVAC	1239	17.60	8.40	.48
HVAC	2101	39.70	7.50	.19
DOE				
All	986	26.70	10.09	.38
No HVAC	942	26.20	10.40	.40
HVAC	1427	32.00	--	--

weatherization program, all of the weatherizations exhibit considerable variability. The low cost and moderate cost groups, which are roughly comparable to the range of investment utilized in DOE's program, all have coefficients of variation between .27 (moderate cost, non-low income) and .39 (low cost, NBS/CSA). The coefficient of variation in the DOE results is .38. Of particular note is the non-HVAC subset of NBS/CSA studies, since this is directly comparable to the DOE approach to weatherization. The coefficient of variation in this subset is .48. Thus, variability in results would appear to be a natural occurrence, rather than a result of poor administration by DOE.

2. Specific Causes of Variability in Weatherization Results

a. The Choice of Conservation Measures

We have pointed out above that one of the reasons why the energy savings achieved by the DOE program may fall on the high side of the range of estimated results is that basic structural repairs, which are part of the DOE program, achieve large energy savings. These savings can be very significant. The non-low income weatherizations and NBS/CSA weatherizations involved housing that was probably in much better condition than the typical low income housing. In fact, the NBS/CSA study ~~expliei~~tly excluded housing that was extremely run down in order to monitor the results better.

Investing a few hundred dollars in structural repairs does not significantly increase the total cost of the weatherization package, but does increase energy savings considerably. If some sites include basic structural repairs (e.g., repair of broken windows, window sashes, cracks in walls, etc.) and some do not, the average costs of weatherization may be quite similar but the savings could be quite different.

This general argument could be made about other specific conservation measures insofar as the measure in question has either particularly high or particularly low marginal returns. For example, in some cases, if one decided to move beyond basic weatherization and spend an additional $500 on HVAC modifications, the result would be high energy savings. In other cases, the $500 may be spent on wall insulation, which results in significantly lower energy savings than HVAC modification. The result would be two weatherization packages with similar levels of dollar investment but very different energy savings. We will develop this concept of weatherization packages in more detail in subsequent chapters.

However, the importance of HVAC modification should be stressed at this point. Including it systematically in the low income weatherization program would lead to major improvements in energy savings. To demonstrate this point, we have estimated the relationship between the cost of weatherization and energy savings based on all of the low income weatherizations that included HVAC modification. As Figure 5 indicates, the result is a curve that shows very high levels of energy savings at low and moderate levels of investment. In essence it shows very dramatic declining marginal returns. Put another way, this suggests that HVAC modifications have high marginal returns. They could constitute major improvements in the DOE program because their levels of investment generally stop short of the point at which the declining marginal returns set in. The program could achieve greater savings without increasing the level of investment by including HVAC modifications and eliminating some less effective measures.

b. Research Methodologies

We should not overlook the possibility that differences in research methodologies are accounting for some of the variability in reported results. In both the non-low income and DOE sets of studies, the methodology differs from site to site. It may well be that differences in the monitoring of costs and benefits account for some of the differences in reported results.

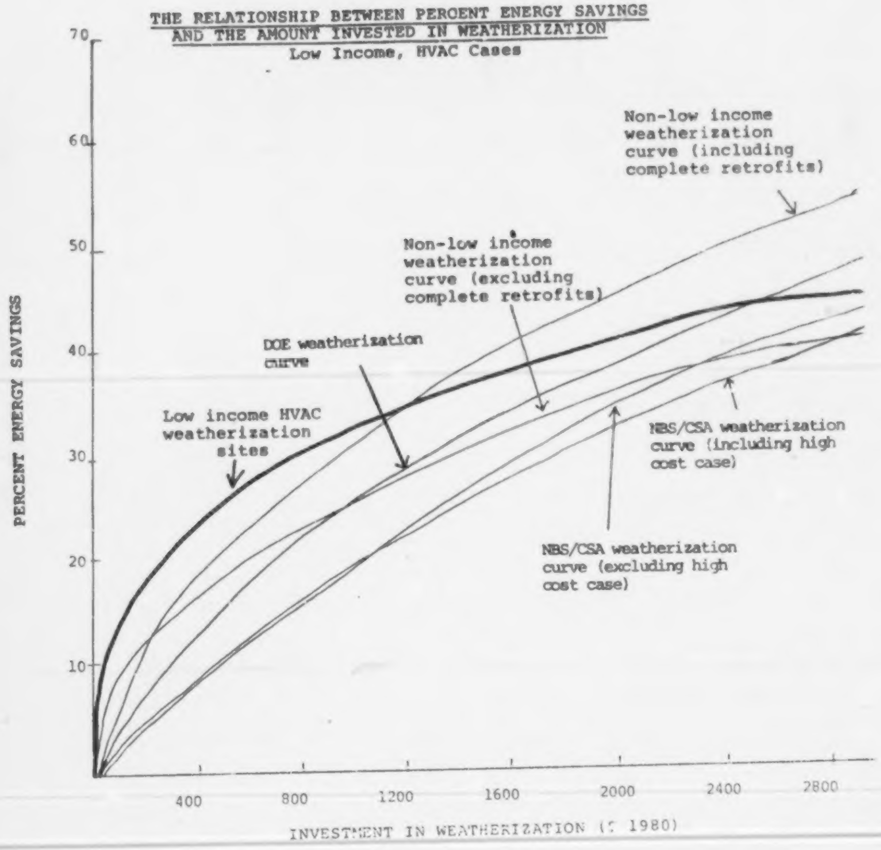
c. Differences in Administration

Even if we account for part of the variability of results by attributing some of the reported differences

FIGURE 5

THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION

Low Income, HVAC Cases



to the condition of the housing, choice of options to be included in the weatherization package and differences in research methodology, it is likely that some of the variability in results stems from differences in administration and quality control. It would make sense to identify the high performance sites and to study their approaches to the administration of the weatherization program, in order to learn how to improve the overall program. The data to do so is not currently available and no such effort will be made in this study.

F. CONCLUSION

At this point, we can answer with considerable confidence the question of whether the low income weatherization program, in general, and the DOE program, in particular, save energy. 16/

1. There is no doubt that weatherization can accomplish major energy savings in actual practice.

2. Low income weatherizations seem to save the same amount of energy as non-low income weatherizations. This is especially true when the analysis is restricted to a "basic" set of conservation measures and does not contain "complete retrofits," which are very costly and go well beyond the general approach of the weatherization program.

3. The DOE program is performing as well as or better than the non-low income weatherizations in their typical range of expenditures.

4. The variation we observe in the results of the DOE weatherizations may be partly a function of administrative unevenness. However, the general indication is that variation in results is to be expected at the levels of investment which typify the DOE program. Further, the majority of DOE cases fall above the results achieved in the non-DOE weatherizations, which is to be expected due to the general conditions of the housing.

CHAPTER III

THE ECONOMICS OF WEATHERIZATION

A. INTRODUCTION

The second set of issues CECA addresses deals with the question of the cost-effectiveness and economic "rationality" of the weatherization program. In this chapter, we generate some estimates of the cost of conserving energy, based on the data sets available to CECA.

B. METHODOLOGY

1. The Accounting Method for Conservation Costs

a. Basic Rationale

In order to make cost benefit calculations, CECA needed to establish an accounting procedure for comparing studies and estimating the cost-effectiveness of projects and programs. In so doing, we chose to calculate the cost per unit of energy saved (expressed as dollars per barrel of oil equivalent). 17/ There are a number of reasons why this approach (rather than the more common payback period approach, for example) is preferable.

First, it avoids the problem of having to predict future energy prices. Given the uncertainties of supply interruptions, the erratic nature of recent price trends and the uncertainty of the impact of the decontrol of prices, projecting future prices is a very difficult undertaking. Since we know the cost of the weatherization and we know the amount of energy that it saves, it is possible to calculate a good measurement of cost effectiveness without introducing the uncertainty of future price projections.

Second, calculating the cost per unit of energy saved enables us to overcome regional disparities in the cost of energy delivered to the home. For example, natural gas is cheap in Chicago and expensive in Boston. This frequently makes it difficult to compare programs when calculations are made on the basis of local energy prices.

Third, calculating the cost per unit of energy saved is readily comparable to the standard calculation made on the production side -- cost per unit of energy produced. Thus, from a national policy point of view, this approach enhances our ability to make choices about where federal energy dollars can most effectively be spent.

b. Choosing Economic Parameters

Calculating the cost per unit of energy saved is a standard and straightforward procedure. In making the calculation, CECA has converted the investment in weatherization to an annual cost (by computing what is known as a capital recovery rate, fixed cost rate, levelized cost or cost of fixed annuity). 18/ This requires stipulation of the amortization period and the interest rate. For purposes of this analysis, CECA has chosen a twenty year period as a conservative estimate of the expected life of the low income residence after weatherization. We have used three real discount, or interest, rates. The lowest rate is 3% (real). This rate is frequently used in analyzing home building/improvement projects. 19/ The middle rate is 6% (real). The National Bureau of Standards has argued persuasively that this is the relevant opportunity cost of capital for weatherization programs. NBS uses the 6% discount rate in its own study of low income weatherization. 20/ The highest rate CECA uses is 10% (real). 21/ These three discount rates cover a reasonable range for purposes of sensitivity analysis.

c. Maintenance Costs

Finally, CECA endeavored to take into account the cost of maintaining or repairing parts of the weatherization package at some point after the weatherization is completed. This is an important point that many prior studies have overlooked entirely. Certain elements of the weatherization package may not need much maintenance, replacement or repair (e.g., fiberglass batts). Other parts of the package probably will need maintenance, replacement or repair (e.g., weatherstripping, caulking, storm windows, blown insulation).

Without the necessary replacement or repair,

8

energy savings will decline. In order to calculate costs and benefits accurately, one must either reduce projected future savings consistent with the expected deterioration of the conservation measure or factor in the costs of maintaining the measure in top working order.

For purposes of this analysis, we have considered two alternatives. In one, we calculate the cost of conserved energy without replacement costs, assuming no deterioration of the package. This establishes the best possible outcome (i.e., the lowest cost per unit of energy saved). In the second alternative, we assume that maintenance and replacement costs amounting to 25% of the original cost of the weatherization are spread over a twenty year period. 22/ We believe that this is a conservative estimate of the future costs necessary to maintain the package. This calculation results in a higher estimate of the cost per unit of energy saved.

With three different discount rates and two alternative assumptions about maintenance costs, we have six estimates of the cost of conserved energy. In the following discussion, whenever we refer to cost per unit of energy saved, we will refer to the case using a 6% discount rate with maintenance costs. We believe this is the most realistic and appropriate cost calculation. Further, it lies roughly in the middle of the range of the six estimates that we have generated.

2. A Note on the Perception of Costs

To those familiar with earlier studies of the cost of conserved energy, the estimates generated by this middle set of assumptions may seem higher than we are accustomed to hearing (they are roughly $30/ barrel of oil equivalent). In fact, these estimates are not high at all compared to the cost of produced energy, as will be made clear in Section D of this chapter. Moreover, the problem is not that the cost estimates using a 6% discount rate and 25% maintenance costs are too high; rather, the problem is that many earlier estimates were deceptively low, i.e., they did not take into account maintenance costs, they were based on low or zero discount rates, and they were not continually adjusted for inflation. The general perception of low costs has compounded the earlier error.

First, let us examine the problem of the psychological perception of costs. As individuals, we are forced to adjust to and become conscious of rising energy prices because we pay them on a regular basis either at the gasoline pump or in our fuel bills.

Researchers, however, have tended _not_ to adjust the estimates of the costs of conserving energy consistently upward to keep pace with inflation. Labor and material costs for weatherization have been rising at least as fast as inflation, but, since one does not encounter _these_ costs on a regular basis, the consciousness raising has not taken place. Therefore, when factoring the costs of conservation, researchers have neglected to include these cost increases. Thus, the estimation of experts from the mid 1970's, that conserving energy is very cheap, only $5.00 per barrel of oil equivalent, has never been revised upward and is still the popularly held view today.

Second, this problem is further compounded by the fact that earlier studies did not take maintenance costs into account and used zero or extremely low discount rates. While it may have been appropriate to use a low discount rate for the average consumer, who does not have the opportunity to make high rates of return on his/her capital, low discount rates are less appropriate when considering the investment of federal dollars (at least when economic questions are being raised).

It is interesting to note that the cost estimates generated by CECA using a 3% discount rate and no maintenance costs are fairly close to the costs of conserved energy to which we have become accustomed.

C. RESULTS

The discussion of the economics of weatherization proceeds in the same order as the discussion of the energy savings of weatherization. First, the basic conclusions are presented. Then the complexities in the data are analyzed. Finally, CECA places the economics of weatherization into a broader context by comparing weatherization, as an energy supply source, to a number of energy production options.

1. Basic Conclusions About the Cost of Conserved Energy

Table 5 presents the estimates of the cost of conserved energy using the various assumptions about discount rates and maintenance costs. The following discussion focuses on the set of estimates which utilized a 6% discount rate including maintenance costs.

The basic conclusion we reach upon reviewing Table 5 is that the DOE weatherizations are conserving energy at a cost which generally parallels the non-DOE weatherizations. The non-low income weatherizations conserve energy at an average cost of $24.34 per barrel of oil equivalent. The NBS/CSA weatherizations conserve energy at an average cost of $27.37 per barrel of oil equivalent. The DOE weatherizations have an average cost of $29.57 per barrel of oil equivalent.

It appears that the DOE weatherizations have a slightly higher average cost per barrel equivalent than the non-DOE weatherizations -- 20% higher than the non-low income weatherizations and 8% higher than the NBS/CSA cases. This would seem to be an anomaly since the DOE program spent less per household and achieved roughly the same percentage energy savings as the other programs. This anomaly can be partially explained by the fact that the non-DOE houses consumed a larger absolute amount of energy prior to the weatherization. Therefore, similar percentage reductions in consumption led to lower quantities of energy being saved in the DOE program.

TABLE 5

COST OF CONSERVED ENERGY

Location	$ Invested/ Unit	Energy Saved (MMBTU)	Cost of Conserved Energy (Annual Levelized Cost Over 20 Years in $1980) at:					
			3% Real		6% Real		10% Real	
			No Maintenance	Maintenance	No Maintenance	Maintenance	No Maintenance	Maintenance
NON-LOW INCOME WEATHERIZATIONS								
Twin Rivers, NJ	3000	40	30.45	35.99	37.87	42.99	51.80	50.98
Bowman House, MD	2040	73	15.14	17.89	19.60	22.25	26.51	28.99
Freehold, NJ	220	24	3.57	4.21	4.63	5.26	6.24	6.82
Freehold, NJ	260	30	3.38	4.00	4.37	4.96	5.91	6.46
Toms River, NJ	200	9	8.63	10.20	11.21	12.73	15.15	16.57
Toms River, NJ	800	27	11.51	13.61	14.95	17.26	20.19	22.08
Denver, CO	270	3	30.74	36.32	39.90	45.29	54.40	59.50
Oregon	1467	19	29.81	35.24	38.74	43.97	52.70	57.63
Average			16.65	19.68	21.41	24.34	29.11	31.13
NBS/CSA WEATHERIZATIONS								
Atlanta, GA	961	26	14.36	16.97	18.63	21.14	24.88	27.21
Charleston, SC	1096	11	38.49	45.49	50.28	57.04	66.03	72.21
Oakland, CA	283	3	36.62	43.27	47.53	53.94	66.23	72.42
St. Louis, MO	1927	25	29.99	35.44	38.92	44.17	55.75	60.97
Minneapolis, MN	1927	51	14.74	17.46	19.14	21.72	26.03	28.47
Washington, DC	3274	58	21.56	25.47	28.91	32.82	38.02	41.58
Tacoma, WA	1957	59	12.88	15.23	16.71	18.97	22.72	24.36
Easton, PA	1027	30	13.33	15.76	17.29	19.62	23.54	25.74
Chicago, IL	2378	119	7.05	8.33	9.89	11.22	13.65	14.93
Colorado Springs, CO	2037	30	10.97	12.96	14.29	16.21	18.16	19.87
Portland, ME	2291	136	6.56	7.75	8.49	9.63	11.42	12.48
Fargo, ND	1802	47	14.60	17.26	19.33	21.94	26.09	28.53
Average			18.40	21.78	24.12	27.37	32.79	35.73
DOE WEATHERIZATIONS								
Luzerne, PA	900	29	12.02	14.15	15.60	17.71	21.08	23.06
Minnesota	945	7	49.61	58.62	64.42	73.11	87.00	95.14
Spokane, WA	1191	12	37.63	44.48	48.85	55.44	65.77	72.13
Kentucky	810	14	22.82	26.97	29.63	33.63	40.01	43.75
Virginia	1047	20	14.63	17.28	19.00	21.57	25.67	28.06
Utah	882	17	20.41	24.12	26.48	30.05	35.77	39.11
Michigan	834	25	14.30	16.90	16.58	18.81	23.38	24.48
Duluth, MN	1000	36	10.80	12.76	14.02	15.91	18.93	20.70
Wisconsin (78)	643	22	11.36	13.42	14.75	16.74	19.92	21.79
Wisconsin (79)	1163	24	18.83	22.25	24.46	27.75	33.02	36.11
Indiana	1427	55	10.35	12.24	12.86	14.59	17.37	19.00
Average			20.25	23.93	26.06	29.57	35.27	38.48

Morevoer, if we focus on levels of investment typical of the DOE program, the difference in cost of conserved energy disappears. That is, ten of the eleven DOE sites have an average investment that falls between $600 and $1200. They have an average cost per barrel equivalent of $31.07. Two of the non-low income cases fall in this range of investment and they have an average cost per barrel equivalent of $30.06. Three of the NBS/CSA weatherizations fall in this range of investment, and they have an average cost per barrel equivalent of $32.60. Thus, the DOE program's cost falls in the middle when we use data generated only from comparably priced weatherizations.

2. Understanding the Complexity of Weatherization

a. General Reflections on Variability

Table 6 presents the calculation of average costs of conserved energy and the coefficients of variation in various subgroupings of weatherization. These calculations lead us to a set of conclusions similar to those reached in Chapter II in the discussion of variability in energy savings (see pages 30-34).

1. There is a great deal of variability in the cost of conserved energy. In fact, the variability in the cost of conserved energy is considerably higher than the variability in percentage energy savings.

TABLE 6

AVERAGE COST OF CONSERVED ENERGY AT VARIOUS LEVELS OF INVESTMENT IN WEATHERIZATION

(assuming 6% discount rate including maintenance costs)

Type of Weatherization	# of Sites	$Investment		Cost per Barrel Equivalent		
		Avg. $	Range $	Avg. ($\bar{X}$)	Standard Deviation (Sd)	Coefficient of Variation (CV = Sd/$\bar{X}$)
Non-Low Income						
All cost groups	8	1132	200-3000	24.34	16.21	.67
Low	4	238	200- 270	17.06	16.59	.97
Moderate	2	1134	800-1467	30.62	13.36	.44
Very High	2	2925	2850-3000	32.62	10.37	.32
NBS/CSA						
All cost groups	12	1742	283-3214	27.37	15.35	.56
Low	4	842	283-1096	37.94	17.60	.46
Moderate	4	1903	1802-1957	26.70	10.15	.38
High	4	2408	2037-3214	17.47	9.19	.53
HVAC Groups						
No HVAC	5	1239	283-1927	39.60	15.43	.39
HVAC	7	2101	1027-3214	18.63	7.12	.38
DOE						
All HVAC Groups	11	986	643-1427	29.57	17.79	.60
No HVAC	10	942	643-1191	31.11	17.98	.58
HVAC	1	1427	---	14.59	--	--

2. The variability in the results of DOE's weatherizations is somewhat greater than in the non-DOE weatherizations. The coefficient of variation for the DOE results is .60. For the moderate cost non-low income studies (those roughly comparable in level of investment to the DOE weatherizations), the coefficient of variation is .44. The coefficient of variation in the NBS/CSA low cost group (the group most comparable to the DOE weatherizations) is .46. An explanation for this somewhat greater variability in cost of conserved energy is contained in a discussion of the specific causes of variability.

It is important to examine the specific causes of variability to ascertain whether the variability is due to problems concerning administration of the program or to other factors that are inherent in weatherization and do not bear directly on the administration of the program.

b. Specific Causes of Variability

1. Climate

The overall variability in the cost of conserved energy may be due, in part, to the fact that weatherizations are only partially tailored to fit the climate zones in which they are performed. This problem has been compounded by a failure to standardize the cost of conserved energy according to these factors. For example, if one adds the same amount of insulation to the identical house in Houston and Minneapolis, the percentage energy reduction in both houses will be the same. The actual amount of energy saved, however, will be much greater in Minneapolis than in Houston because Minneapolis has a colder climate. As a result of the greater actual energy reduction in Minneapolis, the cost per unit of energy conserved would, consequently, be lower than in Houston.

Obviously, it is possible to tailor weatherization packages to climate, but most weatherizations do not do so with great precision. Insofar as they fail to do so, this shows up in the results as greater variability in the cost per unit of conserved energy. The problem is compounded by an inability to standardize the results for climate, i.e., compute costs per Btu/degree day. Due to lack of available data, this computation cannot be made. Here, we note that the NBS/CSA cases, which did attempt to optimize the weatherization package, have the lowest variability, particularly when weatherizations with and without HVAC modifications are considered separately.

2. Choice of Conservation Measures

The choice of conservation measures also has an impact on the variability of results. It is clear that HVAC modifications have high marginal returns and, therefore, lead to lower average costs of conserved energy.

This is evident in the NBS/CSA cases, where those weatherizations with HVAC modifications exhibit average costs of conserved energy less than half the costs of weatherizations without HVAC modifications. Thus, units weatherized with and without HVAC modifications will exhibit considerable variability in the results.

It should also be noted here that the NBS/CSA non-HVAC cases have a much higher cost than the DOE non-HVAC cases. We would attribute this to the low cost of basic structural repairs, which are part of the DOE program, and the extensive use of wall insulation in the NBS/CSA study (a high cost measure not used in the DOE program), as outlined in Chapter II.

3. Other Causes of Variability

In addition to these causes, the other sources of variability noted in the discussion in Chapter II on energy savings, i.e., differences in research methodologies and differences in administration, could also be sources of variability in the costs of conserved energy.

Having noted the sensitivity of the cost of conserved energy to climatological factors and the choice of conservation measures included in the weatherization package, it would seem that efforts to optimize packages and tailor them carefully to the climate can have a major impact on the variability in the cost of conserved energy. Had these steps been taken in the actual program, we would expect to have observed less variability in results. In fact, we suggest that future weatherizations would be even more effective if an effort were made to "optimize" the weatherization package.

D. COMPARISONS WITH OTHER ENERGY OPTIONS

1. Introduction

Estimating the cost of conserved energy is only the first step in evaluating the cost effectiveness of the DOE weatherization program. We have ascertained that the cost per unit of energy saved in the DOE weatherization program is reasonable when compared to the costs in non-DOE and non-low income weatherizations. However, a question may remain as to whether the cost of weatherization is economically attractive when compared to other energy options.

Futhermore, each energy option has economic characteristics other than costs, such as capital intensity or labor intensity, which should be considered in assessing the economic attractiveness of the option. This section places the weatherization program in that broader context.

2. Methodology

Appendix A gives a detailed description of the methodology CECA used in estimating the various economic characteristics of the energy options. In addition to estimating the cost of energy production, CECA analyzed the capital intensity, labor intensity and geographic concentration of the various energy sources.

a. Capital Intensity

Capital intensity is frequently used as a measure of the economic nature of energy options. 23/ All major new sources of energy will require substantial outlays of capital. Insofar as the availability of capital is finite and the utilization of capital to produce or conserve energy diverts it from other uses to which it might be put in order to increase the quantity of goods and services available in society, capital efficiency becomes an important consideration in choosing energy options. 24/ The measure of capital intensity which CECA utilizes is $1000 invested per employee.

b. Labor Intensity

Labor intensity is closely related to capital intensity. However, we believe that it is useful to consider separately a direct measurement of the number of jobs generated by each energy option. 25/ Given the fact that the economy faces a situation of chronic unemployment, a case can be made for the desirability of pursuing those energy options which create the greatest number of jobs. At a minimum, some consideration should be given to the possibility of simultaneously improving the energy situation and the employment situation. The measurement of labor intensity which CECA utilizes is the number of employees per million dollars of output.

c. Geographic Concentration

We also believe it is important to examine the geographic pattern of economic activity which would result from each of the energy choices. The production of energy tends to be concentrated in a small number of states. As energy prices rise, the transfer of resources from consuming to producing regions may present major social and economic problems. Even though national aggregate economic figures may not be affected by these transfers of wealth, one should give serious consideration to those strategies which accomplish the same goals -- increasing the amount of energy available -- without creating the transfers of wealth from consuming to producing regions. In the long run, such strategies will have lower social and economic costs to the nation. We measure the geographic concentration of energy sources by calculating the number of states which produce (or are likely to produce) 80% of the total output of the particular energy source.

3. Results

Table 7 presents CECA's estimates of the economic characteristics of the various energy options. They should be taken as general ball park estimates rather than precise "to-the-last-penny" figures. For purposes of this analysis we have used the estimate of the cost of conserved energy calculated on the basis of a 10% discount rate with maintenance costs, in order to permit the most direct comparison to the cost estimates of produced energy. The low estimate of the cost of conserved energy is for weatherizations with HVAC modifications; the high estimate is for weatherizations without HVAC modifications.

It can be seen that conservation is a cheap source of energy, ranging from $19-$40 per barrel of oil equivalent. All of the production options, except natural gas, are far more expensive than conservation. The current delivered price of oil is $51/bbl equivalent. The cost of electricity ($73-$109) and the cost of synthetics ($42-$83) are well above the cost of conserved energy. Even for natural gas, conservation is quite cost competitive. Thus, from the point of view of the cost of energy, we can certainly conclude that the investment of federal dollars in weatherization makes good economic sense as part of an energy/economic program.

TABLE 7

ECONOMIC CHARACTERISTICS OF ENERGY OPTIONS 1/

Option	Cost of Energy ($1980/bbl equiv.)	Capital Intensity ($1000 invested/job)	Labor Intensity (Jobs/$million output)	Geographic Concentration (# of states producing 80% of total output)
Conventional				
Oil	51	128	20	5
Gas	23-44			4
Electricity	73-109	125	10	17
Synthetics				
Oil	71-83	65-70	10-38	8
Gas	42-63			
Shale	45-67			1
Conservation	19-40	35	33	17-40

1/ See Appendix A for discussion of the derivation of these estimates.

When we review the other economic characteristics of energy options, the conclusion that investment in weatherization makes sense is reinforced. Weatherization is less capital intensive, more labor intensive and less geographically concentrated than any of the other energy options. Weatherization results in more capital freed for other types of investment, more jobs created and a more dispersed stimulation of economic activity. Indeed, weatherization produces jobs in those areas where they are most needed -- low income areas. It keeps economic resources in those areas where they are most needed -- in low income communities. 26/

E. CONCLUSION

In this chapter we have analyzed the economics of weatherization. We conclude the following:

1. The DOE low income weatherization program exhibits costs per barrel of oil equivalent which are quite consistent with the costs observed in non-low income research weatherizations and in the non-DOE low income research weatherizations.

2. Those costs are "cheap" when compared with the cost of producing energy (in all but one case). Moreover, the cost of conservation is competitive with the cost of the cheapest source of produced energy (natural gas).

3. The other economic characteristics of weatherization -- its low capital intensity, high labor intensity and geographic dispersion -- also make it an attractive economic option.

Thus, in addition to determining that weatherization achieves significant energy savings, CECA concludes that it does so in a very cost-effective manner. Weatherization consitutes a very sound economic use of federal energy investment dollars.

CHAPTER IV

THE SOCIAL IMPACT OF THE WEATHERIZATION PROGRAM

A. INTRODUCTION

The final set of issues that CECA addresses involves the question of the social benefits of the program.

First, does the DOE low income weatherization program significantly reduce the energy burden borne by low income households?

Second, is there a potential relationship between low income weatherization and low income assistance? What would be the benefits of a program which combines the two functions, and how would such a program be structured? There is an urgent need for direct low income energy assistance to help poor people pay their continually rising energy bills and ensure a degree of social justice. Yet, when considering low income assistance and weatherization side by side, weatherization would yield a more permanent benefit for both the individual household and the nation. To some policy analysts, it has seemed an unsound public policy to fund assistance at almost ten times the level of weatherization funding. If all that money could be used to fund weatherization, they say, the nation could reap significant energy savings and low income people could reduce household fuel consumption, thereby, presumably, cutting their fuel bills as well.

However, though the shifting of federal resources from energy assistance to weatherization may appear to be the most rational approach, such a shift could mean major changes in benefits for low income households. In particular, it could have a major disruptive short term impact on the flow of energy assistance to certain households. Such problems must be addressed in designing a new, combined weatherization/assistance program. In this chapter, CECA examines the problems inherent in applying assistance funds toward weatherization. In so doing, CECA designs an alternative low income energy program which combines assistance and weatherization, thereby maximizing the benefits to low income households, while at the same time minimizing the disruptive impact of the trading off of assistance for weatherization.

B. REDUCTION OF ENERGY BILLS AS A RESULT OF WEATHERIZATION

1. Methodology

In order to address both of these issues, it is necessary to estimate how much energy the poor consume, how much they pay for that energy and to what degree weatherization can reduce the burden of energy costs.

Estimating the energy consumption of the low income population has proved to be a difficult task. 27/ For purposes of this analysis, CECA derived estimates of energy consumption from the data available in the studies reviewed herein.

The estimates were derived by calculating the relationship between energy consumption and heating degree days, using a linear least squares best fit line. 28/ Prior attempts to estimate the energy consumption of the poor have involved subjective manipulation of national averages or regional figures. We believe CECA's data-based approach yields more accurate estimates.

A similar procedure was undertaken for projecting cooling energy consumption. 29/ However, we assumed that the low income household used no cooling energy unless the climate had more than 2000 cooling degree days. 30/

In order to calculate the reduction in energy use resulting from weatherization, we assumed that the weatherization would save 27% of the heating energy and 10% of the cooling energy. 31/

The price of energy was taken from the Bureau of Labor Statistics' (BLS) Consumer Price Index February 1981 report. In those cases where BLS reports energy prices for only one Standard Metropolitan Statistical Area (SMSA) per state, we used that price. Where BLS reports more than one SMSA per state, we used the simple average of all SMSA's in the state. Where no BLS data are available, we used the regional average price, recently reported by the Grier Partnership. 32/

2. Results

The estimates of energy use, energy savings, and dollar savings resulting from weatherization are presented in Table 8. The national average reduction in annual energy costs for heating and cooling is $182. The reduction in costs ranges from a low of $78 in California to a high of $384 in Vermont. For the low income population, these are considerable sums of money. In fact, the savings represent about four percent of the average household income of the low income population. And, of course, the dollar savings are achieved year after year and increase as energy prices rise.

These savings estimates form the basis for considering the link between the low income assistance program and the weatherization program. The dollar savings achieved through weatherization are roughly equal to the annual payments distributed in the low income energy assistance program. That is, in cold climates, both the savings due to weatherization as well as the low income assistance payments were in the $300-$400 range. In warm climates, both the savings and the payments were in the $100-$200 range.

TABLE 8

ESTIMATING THE IMPACT OF WEATHERIZATION IN REDUCING THE ENERGY BURDENS OF THE POOR

State	Predominant Heating Fuel	Heating Energy (Annual)			Cooling Energy (Annual)(1)			Total Savings ($/year)
		Avg. Use (MMBTU)	Savings Due to Weatherization (MMBTU)	Dollar Savings	Avg. Use (MMBTU)	Savings Due to Weatherization (MMBTU)	Dollar Savings	
New England								
CT	OIL	133	35	320	--	--	--	320
ME	OIL	156	41	375	--	--	--	375
MA	OIL	137	36	324	--	--	--	324
NH	OIL	154	40	366	--	--	--	366
RI	OIL	131	34	311	--	--	--	311
VT	OIL	160	42	384	--	--	--	384
Mid Atlantic								
NJ	OIL	127	33	302	--	--	--	302
NY	OIL	134	35	322	--	--	--	322
PA	GAS	135	35	166	--	--	--	166
East North Central								
IL	GAS	154	40	160	--	--	--	160
IN	GAS	143	37	141	--	--	--	141
MI	GAS	164	43	175	--	--	--	175
OH	GAS	139	36	134	--	--	--	134
WI	GAS	171	44	191	--	--	--	191
West North Central								
IA	GAS	150	39	152	--	--	--	152
KS	GAS	123	32	125	3.8	.38	6	131
MN	GAS	175	46	179	--	--	--	179
MO	GAS	124	32	130	4.0	.4	6	136
NB	GAS	143	37	144	--	--	--	144
ND	GAS	184	48	187	--	--	--	187
SD	GAS	160	42	164	--	--	--	164
South Atlantic								
DE	OIL	118	31	277	--	--	--	277
DC	GAS	117	30	151	4.2	.42	8	159
FLA	ELEC.	52	14	209	15.8	1.58	27	236
GA	GAS	87	23	96	6.1	.61	9	105
MD	GAS	117	30	142	4.2	.42	8	150
NC	OIL	97	25	233	4.9	.49	7	250
SC	GAS	87	27	113	10.4	1.04	15	128
VA	OIL	120	31	288	4.3	.43	6	294
W.VA	GAS	121	31	130	--	--	--	130
East South Central								
AL	GAS	87	23	83	9.6	.96	14	97
KY	GAS	113	29	106	3.5	.35	5	111
MS	GAS	83	22	79	9.7	.97	14	94
TN	GAS	104	27	97	6.7	.67	10	107
West South Central								
AK	GAS	96	25	90	8.3	.83	15	105
LA	GAS	71	18	65	11.0	1.10	19	84
OK	GAS	102	27	97	6.5	.65	11	108
TX	GAS	76	20	76	10.3	1.03	17	95
Mountain								
AZ	GAS	80	21	80	14.2	1.42	11	91
CO	GAS	141	37	147	--	--	--	147
ID	GAS	140	36	137	--	--	--	137
MT	GAS	156	41	156	--	--	--	156
NV	GAS	108	28	106	10.7	1.07	16	122
NM	GAS	115	30	114	3.7	.37	5	119
UT	GAS	138	36	137	--	--	--	137
WY	GAS	151	39	148	--	--	--	148
Pacific								
CA	GAS	80	21	67	4.8	.48	11	78
OR	OIL	110	29	228	--	--	--	228
WA	OIL	117	30	246	--	--	--	246
AVERAGE								182

(1) neglibible cooling energy assumed for states with no savings indicated

C. POTENTIAL RELATIONSHIP BETWEEN WEATHERIZATION AND ENERGY ASSISTANCE

1. Methodology

a. Principles

The estimated reduction in energy costs that results from weatherization provides the basis for examining the potential link between weatherization and energy assistance. Can energy assistance monies be converted to weatherization funds and either increase or stabilize the financial benefits of government energy services to low income households? We establish three fundamental propositions as the basis for our analysis:

1. The low income household fares as well with weatherization as with assistance, provided the real monetary benefits of the two services remain the same.

2. The U.S. Treasury is indifferent to the choice between weatherization and energy assistance, provided the outlay of federal dollars remains the same.

3. From the national policy point of view, weatherization is preferable to energy assistance, since weatherization produces energy savings and thus reduces U.S. consumption of energy and dependence on oil imports. This proposition is also supported by the economic analysis presented in Chapter III.

Since neither the low income beneficiary nor the Treasury would be hurt by using energy assistance funds for weatherization, and since the nation would benefit in the process, the logical conclusion would be to shift energy assistance resources to weatherization.

However, a problem with this conclusion arises when we consider the distribution of benefits of the two programs. If we assume that there is a fixed pool of funds available for the two programs combined, we are faced with having to combine three potential assistance payments (for example, \$320 each) in order to purchase one weatherization (\$960, approximately the average cost in the DOE program). In the long run, the nation, the U.S. Treasury and the community of low income individuals would be better off if the weatherization option is pursued. In the short run, however, two households are left out in the cold, since assistance payments for three households are combined to weatherize only one household. As agency personnel involved in meeting the energy needs of the poor point out, low income people are in dire need now, and they simply cannot wait until the limited pool of funds available annually enables their house, at last, to be weatherized.

One logical way to reconcile the obvious long term superiority of the weatherization route and the pressing immediate needs of the low income population would be to appropriate in advance future years' funding for the assistance program in order to finance weatherization of all low income homes immediately. However, given current political and financial constraints and limitations on administrative capacity and available labor, we consider this option to be extremely unlikely at the present time.

What is the next best alternative? How can we design a program to shift resources from energy assistance to weatherization, while fulfilling the following principles:

1. Minimize the loss of benefits to all low income households in any given year, i.e., minimize the potential problem that shifting resources from assistance to weatherization would cause for those households that must "wait" for the weatherization.

2. Equalize the dollar benefits received by each household.

3. Maximize the total benefit "to the nation" of the combined weatherization/assistance program.

Following these principles, CECA began to design a program to shift resources from energy assistance to weatherization. In designing such a program, one logical way to keep annual federal spending down to a reasonable level *and* to minimize the number of households unserved by weatherization would be to design weatherization packages that cost less. If the weatherization package were less costly than those analyzed in this report, more households could be served and unserved families would not be forced to wait so long. These low cost packages would have the attraction of capturing the "easy" energy savings first. Further, after all households had received the first weatherization package, a sequential purchase of additional weatherization would be implemented. That is, blanket the low income population with the relatively low cost/high return packages on the first round, then later add the higher cost packages on the second round. Three sets of conservation measures can be readily identified from the earlier analysis:

1. Basic structural repairs, HVAC modifications and basic infiltration reduction, as well as other low cost measures.

2. Insulation (ceilings, windows) and advanced infiltration reduction.

3. Advanced insulation (walls) and advanced structural repairs.

In effect, this procedure for capturing savings involves a fourth principle to be applied for practical reasons -- maximize early benefits by avoiding the declining marginal returns that energy conservation measures exhibit. That is, put together packages of the high return conservation measures first. Then proceed to the next set of measures, etc.

b. Assumptions and Cases

In order to design the combined weatherization/assistance program, we assume from the outset that both the legal right and administrative capacity exist to use the funds for both purposes. It is important to point out, however, that CECA's model is only an economic model and does not deal with the question of administrative feasibility or administrative delivery systems. Further, for purposes of analysis, we set the assistance payment in the first year at $320 per household. We develop a model based on a hypothetical group of five households and manage their assistance and weatherization funds over a period of ten years with the objective of achieving the three principles stated on page 63.

In addition to these fundamental assumptions, we must also make some operating assumptions about the cost of weatherization, the level of funding available, etc. Four sets of parameters must be specified:

1. Inflation

In order to proceed, CECA needed to make assumptions about the impact of inflation on both energy prices and the cost of weatherization.

a. Energy Prices

At what rate will energy prices increase? This question establishes the "burden" that will be borne by either low income households or the Treasury -- depending on who pays the bill. For purposes of the analysis, we have assumed a 10% nominal rate of inflation in energy prices. Higher estimates of the rate of energy price increases would make combining weatherization and assistance even more attractive than in the following analysis.

b. Weatherization

At what rate will the cost of weatherization increase? This question establishes how much weatherization we can buy in the future with a specified sum of money. For purposes of this analysis, we assume an 8% nominal rate of inflation in the cost of weatherization. Thus, we assume that, relative to the cost of weatherization, energy prices are rising in real terms (1.85% real). We believe that this is an extremely conservative assumption.

2. Energy Savings

In order to calculate the benefits of combining weatherization and assistance, we must have some estimate of the amount of energy we expect to save with each set of conservation measures that we select. For purposes of this analysis, we have chosen two weatherization alternatives. We have divided the energy savings curves into segments that would include different combinations of measures, as outlined on p. 64.

a. Low Energy Savings

The first alternative — called the low energy savings alternative -- is based on the average energy savings predicted by all of the low income curves calculated earlier. We construct from those curves four packages, each costing $400 in 1980 dollars, to be implemented sequentially. The first package reduces energy consumption by 11% of the base. The second reduces energy consumption by an additional 7.5% of the original base. The third package reduces consumption by another 6% of the original base, and the fourth package reduces consumption by another 5.5% of the original base. Thus, we arrive at a total package that costs $1600 in 1980 dollars and reduces energy consumption by 30%. This sequence of packages is described in Table 9.

TABLE 9

TWO SEQUENCES OF CONSERVATION PACKAGES

	Weatherization Package	Cost ($1980)	Energy Savings Cumulative as % of Base Energy Savings	
			Increment	Cumulative
Low Energy Savings (based on average of all low income curves)	1	400	11	11
	2	400	7.5	18.5
	3	400	6	24.5
	4	400	5	30
High Energy Savings (based on HVAC low income curve)	1	600	27	27
	2	600	6	33
	3	600	5	38

b. High Energy Savings

The high energy savings package is based on the HVAC low income curve. We have seen that the inclusion of HVAC modification leads to major improvements in energy savings. Since we are designing a new approach to weatherization, we have taken the liberty of designing it properly and including HVAC modification. This set of weatherizations is broken down into three sequential packages, each costing $600 in 1980 dollars. The first cuts energy consumption by 27% of the base. The second package cuts energy consumption another 6% of the base. The third package extends the reduction another 5% of the base, for a total reduction of 38%. This set of packages is also described in Table 9.

3. Indexing of Payments

In designing the combined program, it is important to estimate the amount of funding that will be available over a fairly long term. The expected level of funding dictates how one "trades" assistance for weatherization. For purposes of this analysis, we consider two different cases:

a. Constant Real

The first case assumes that assistance payments will be indexed to the rise in energy prices. Payments would constitute a constant real sum. Put in other words, the payment would buy the low income household a fixed quantity of energy, regardless of the price.

b. Declining Real

The second case assumes that the assistance payments will be a fixed dollar amount over the years. This is a declining real sum. Payments decline in real terms at the same rate at which energy prices increase. In other words, a payment buys the low income household smaller quantities of energy each year.

The level of assistance payments and the method for computing the level have been and probably will continue to be hotly debated issues. We believe that these two alternatives bracket the positions taken in the policy debate.

4. Distributing Social Gains

Because weatherization is a better "investment" than assistance, there comes a point at which the combined weatherization/assistance approach produces more potential benefits than the assistance-only approach. At that point, society is better off. The question is: How should those social gains be distributed? We consider two alternative cases here:

a. The Plowback Option

In one case, we assume that all social gains are "plowed back" into weatherization. The principles established for the combined program lead to a set of operational procedures which we apply in our hypothetical model in order to decide how to plow back the funds.

If the reduction in energy consumption due to a weatherization package previously installed on the home results in real dollar savings which are smaller than the amount of money the household would have received in real assistance benefits, then the available funds cannot be used simply for additional weatherization packages in the sequence. Funds must be set aside for assistance. This minimizes the "disruptive" impact of the trade-off. Once all five households in our model are receiving annual benefits through reduced energy consumption equal to or greater than the amount they would have received under tha assistance-only approach, one buys as much weatherization as possible. For practical considerations, where the sum of dollars available buys less than half a "package," they are distributed as assistance. Where they buy more than half a package, they are "held over" until the next year. This latter condition is based on our judgment about what would be administratively feasible.

b. Reversion to Treasury Option

In the second case, we assume that all social gains revert to the Treasury. That is, once the low income households have received an aggregate benefit equal to the cumulative total of benefits that the Treasury intended for that year, and once each household is receiving an annual benefit equal to the annual benefit that the Treasury intended in that year, all unspent dollars revert to the Treasury.

The method for distributing social gains could be another hotly debated issue. Here again, we have endeavored in the two cases above to bracket the extreme positions that would most likely occur in the debate.

In establishing these sets of assumptions, CECA has created eight different scenarios, as described in Table 10. All scenarios share the common assumptions about fuel price increases and weatherization cost increases.

2. Results

As in the earlier chapters, the discussion of results begins by presenting some basic conclusions, followed by more detailed observations.

a. Basic Conclusions

As a baseline, CECA compares the combined program to an assistance-only approach. That is, we assume that a large pool of assistance funds currently exists and we are interested in ascertaining whether parts of that pool should be turned into weatherization funding. In fact, almost all of the funds in the Department of Health and Human Services (HHS) low income energy assistance program have been used strictly for assistance. These funds may

TABLE 10

CECA'S ASSUMPTIONS LEADING TO EIGHT SCENARIOS FOR A COMBINED WEATHERIZATION/ASSISTANCE PROGRAM [1]

	Constant Real Payments		Declining Real Payments	
	Social Gains Revert to the Treasury	Social Gains Plowed Back into Weatherization	Social Gains Revert to the Treasury	Social Gains Plowed Back Into Weatherization
Low Energy Savings				
High Energy Savings				

---

[1] All scenarios assume 10% annual, nominal fuel price increase and 8% annual nominal increase in the cost of weatherization.

provide a potential pool for a combined program. We assume that the current DOE weatherization program, which is separate from the HHS assistance program, continues as is. The DOE program is conducted using a very different approach than CECA uses in its model, in that the DOE program does not sequentially purchase weatherization.

In order to evaluate the eight different scenarios, we compare three significant effects of the combined approach and the assistance-only approach:

1. Total expenditures by the Treasury (current and real dollars).

2. Total real benefits to the low income population.

3. Average reduction in energy consumption per household.

Table 11 presents the calculation of the three effects for both approaches. In terms of these three effects, the combined approach is clearly preferable to the assistance-only approach under all scenarios.

Under the combined approach, the Treasury expenditures are equal to or less than under the assistance-only approach; benefits to the low income population are equal to or larger than under the assistance-only approach; and significant energy savings are achieved as well.

TABLE 11

THE EFFECTS OF ALTERNATIVE APPROACHES TO WEATHERIZATION AND ASSISTANCE OVER A TEN YEAR PERIOD 1/

EFFECT	ASSISTANCE ONLY APPROACH		COMBINED WEATHERIZATION/ASSISTANCE APPROACH							
	Constant 4/ Real	Declining 4/ Real	Constant Real				Declining Real			
			Revert to Treas.		Plowback		Revert to Treas.		Plowback	
			Low 2/	High 3/	Low	High	Low	High	Low	High
1. Total Expenditures										
a. Current $	25503	16000	18932	6561	23340	15637	9423	6311	15980	15166
b. Real $	17398	11590	13599	5869	16317	11919	7709	5649	11578	11039
2. Total Benefits (Real $)	16000	10815	16073	16067	16763	19086	10825	15728	13855	18218
3. Avg. Reduction in Energy Consumption per Household (in %)	None	None	11	27	30	38	11	27	18.5	38

1/ Assuming five households with the payment in the first year equal to $320.

2/ Low energy savings assumption.

3/ High energy savings assumption.

4/ Energy prices are assumed to rise at 10% per year.

This is true regardless of which assumptions we make about indexing of payments (i.e., constant real or declining real), level of energy savings (i.e., high or low case) and distribution of additional benefits (i.e., plowback or reversion to the Treasury).

Furthermore, it is clear that a combined program produces very large social gains. That is, under the combined approach, either the potential reduction in Treasury expenditures or the increase in benefits to low income households (through plowback into weatherization) is significant.

Table 12 converts the results of Table 11 into percentages, using the assistance-only approach as a base and showing the relative improvement that the combined approach produces. To summarize Table 12:

1. Under the plowback assumption, without increasing Treasury expenditures, the low income population receives between 5% and 68% more benefits and the average reduction in energy consumption is between 18.5% and 38% per household, depending on the assumptions made about the level of payments and the level of energy savings.

2. Under the return to Treasury option, without reducing the benefits to the low income household, the Treasury reduces its expenditures between 22% and

TABLE 12

COMBINED WEATHERIZATION/ASSISTANCE APPROACH COMPARED TO AN ASSISTANCE-ONLY APPROACH

Scenario	Reduction in Total Expenditure as a % of Assist.-Only		Increase in Total Benefits as a % of Assist.-Only	Average Energy Savings per Household (%)
	Current	Real	Real	
PLOWBACK INTO WEATHERIZATION				
Constant Real Payment				
Low 1/	8	6	5	30
High 2/	39	31	19	38
Declining Real Payment				
Low	0	0	28	18.5
High	5	5	68	38
REVERT TO TREASURY				
Constant Real Payment				
Low	26	22	5	11
High	74	76	4	27
Declining Real Payment				
Low	41	33	0	11
High	61	52	45	27

1/ Low energy savings assumption.

2/ High energy savings assumption.

76% and the average reduction in energy consumption is between 11% and 27%, depending on the assumptions made about the level of payments and the level of energy savings.

The argument in favor of a combined approach is compelling.

Let us work through one example to make this point clear. We choose the case with the most difficult assumptions, i.e., low energy savings and declining real payments. The assistance-only approach would cost the Treasury $16,000 (current) or $11,590 (real) over ten years and deliver $10,815 in real benefits to low income households. Under the combined approach using the "return to the Treasury" option, the benefits to the low income population would be roughly the same ($10,825 real), but the Treasury's expenditure would be reduced by 42%, to $9423 (current), or by 33%, to $7789 (real).

Alternatively, under the combined approach using the "plowback" option, the Treasury's expenditure would be about the same as under the assistance-only approach ($15,980 current or $11,578 real). However, the benefits to the low income population would be much higher ($13,855 real), an increase of 28%. Moreover, all of the households would have received two sequences of weatherizations and the average reduction in energy consumption per household would be 18.5%. 33/

b. The Process of Combining Weatherization and Assistance

The overwhelming point of concern expressed by those who have been involved in meeting the energy needs of the low income population, when contemplating using assistance money for weatherization, has been the issue of waiting time and the distribution of benefits. If weatherization consumes large quantities of resources in order to serve a small number of households, then the assistance payments for the remaining households would be dramatically reduced; some households might even go unserved. Since low income households need assistance now, these reduced payments would be unacceptable.

The set of principles we have applied in our model (see page 63) minimizes this problem. The model maintains a relatively high level of assistance for all households, although some benefits must be foregone in the present in order to achieve greater benefits in the future.

Tables 13-20 show the dynamic process of purchasing weatherization and applying the remainder toward assistance payments in each of the eight scenarios.

Under the low energy savings assumption, all families receive 83% of the benefits they would have received in the first year under the assistance-only approach ($266 instead of $320). In the second year,

TABLE 13

CECA'S HYPOTHETICAL MODEL OF COMBINED WEATHERIZATION AND ASSISTANCE COMPARED TO AN ASSISTANCE ONLY PROGRAM
(Assuming Low Energy Savings, Constant Real Payments, and Reversion to the Treasury Option)

Year	WEATHERIZATION PLUS ASSISTANCE Household 1 W	1 A	2 W	2 A	3 W	3 A	4 W	4 A	5 W	5 A	Total W&A Current	Total W&A Real$	ASSISTANCE ONLY Total Current	ASSISTANCE ONLY Total Real$
	EXPENDITURES (Current $)													
1	400	136	0	266	0	266	0	266	0	266	1600	1600	1600	1600
2	0	178	432	178	0	325	0	325	0	325	1763	1632	1760	1630
3	0	230	0	230	437	230	0	391	0	391	1939	1657	1936	1655
4	0	290	0	290	0	290	504	290	0	467	2131 1/	1691	2130	1690
5	0	360	0	360	0	360	0	360	544	360	2344	1724	2343	1723
6	0	300	0	300	0	300	0	300	0	300	1500 2/	1020	2577	1753
7	0	330	0	330	0	330	0	330	0	330	1650	1038	2835	1783
8	0	363	0	363	0	363	0	363	0	363	1815	1061	3119	1824
9	0	399	0	399	0	399	0	399	0	399	1995	1078	3430	1854
10	0	439	0	439	0	439	0	439	0	439	2195	1098	3773	1887
TOTAL	3425		3587		3769		3967		4184		18932	13599	25503	17398
	BENEFITS (Real $)											Real$		Real$
1	133	136	0	266	0	266	0	266	0	266		1333		1600
2	133	162	133	162	0	295	0	295	0	295		1475		1600
3	133	190	133	190	133	190	0	323	0	323 3/		1615		1600
4	133	218	133	218	133	218	133	218	0	351		1755		1600
5	133	246	133	246	133	246	133	246	133	246 4/		1895		1600
6	133	187	133	187	133	187	133	187	133	187		1600		1600
7	133	187	133	187	133	187	133	187	133	187		1600		1600
8	133	187	133	187	133	187	133	187	133	187		1600		1600
9	133	187	133	187	133	187	133	187	133	187		1600		1600
10	133	187	133	187	133	187	133	187	133	187		1600		1600
TOTAL	3217		3214		3214		3214		3214			16073		16000

1/ Combining 4th and 5th year funds could purchase a weatherization package, but it violates the administrative feasibility assumption.

2/ Using later year funds for weatherization creates inequities in the distribution of benefits between households.

3/ Annual stream of combined weatherization/assistance benefits equals assistance only benefits.

4/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

TABLE 14

CECA'S HYPOTHETICAL MODEL OF A COMBINED WEATHERIZATION AND ASSISTANCE PROGRAM COMPARED TO ASSISTANCE ONLY PROGRAM

(Assuming Low Energy Savings, Constant Real Payments, and Plowback into Weatherization Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household 1		Household 2		Household 3		Household 4		Household 5		Total W&A		Total	
	W	A	W	A	W	A	W	A	W	A	Current	Real$	Current	Real$
	EXPENDITURES (Current $)													
1	400	136	0	266	0	266	0	266	0	266	1600	1600	1600	1600
2	0	178	432	178	0	325	0	325	0	325	1763	1632	1760	1630
3	0	230	0	230	467	230	0	391	0	391	1939	1657	1936	1655
4	0	290	0	290	0	290	504	290	0	467	2131 1/	1691	2130	1690
5	0	360	0	360	0	360	0	360	546	360	2346	1725	2343	1723
6	588	192	588	192	0	338	0	338	0	338	2574 2/	1751	2577	1753
7	0	187	0	187	635	187	635	187	635	187	2840	1786	2835	1783
8	686	0	686	0	686	0	686	0	0	375	3119	1824	3119	1824
9	741	0	741	0	741	0	0	232	741	232	3428	1851	3430	1854
10	0	0	0	0	0	0	800	0	800	0	1600	800	3773	1887
TOTAL	3988		4150		4525		5014		5663		23340	16317	25503	17398
	BENEFITS (Real $)											Real$		Real$
1	133	136	0	266	0	266	0	266	0	266		1337		1660
2	133	162	133	162	0	295	0	295	0	295		1475		1600
3	133	190	133	190	133	190	0	323	0	323 3/		1615		1600
4	133	218	133	218	133	218	133	218	0	351		1755		1600
5	133	246	133	246	133	246	133	246	133	246 4/		1895		1600
6	224	119	224	119	133	210	133	210	133	210		1715		1600
7	224	106	224	106	224	106	224	106	224	106		1650		1600
8	297	0	297	0	297	0	297	0	224	193		1605		1600
9	364	0	364	0	364	0	297	109	297	109		1904		1600
10	360	0	364	0	364	0	364	0	364	0		1816		1600
TOTAL	3311		3312		3312		3314		3474			16763		16000

1/ Combining 4th and 5th year funds could purchase a weatherization package, but it violates the administrative feasibility assumption.

2/ Using later year funds for weatherization creates inequities in the distribution of benefits between households.

3/ Annual stream of combined weatherization/assistance benefits equals assistance only.

4/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

TABLE 15

CECA'S HYPOTHETICAL MODEL OF COMBINED WEATHERIZATION AND ASSISTANCE COMPARED TO AN ASSISTANCE ONLY PROGRAM

(Assuming Low Energy Savings, Declining Real Payments, and Reversion to Treasury Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household 1		2		3		4		5		Total W&A		Total	
	W	A	W	A	W	A	W	A	W	A				
	EXPENDITURES (Current $)										Current	Real$	Current	Real$
1	400	136	0	266	0	266	0	266	0	266	1600	1600	1600	1600
2	0	147	432	147	0	292	0	292	0	292	1602	1483	1600	1481
3	0	162	0	162	467	162	0	325	0	325	1603	1370	1600	1368
4	0	184	0	184	0	184	504	184	0	359	1599 1/	1269	1600	1270
5	0	211	0	211	0	211	0	211	544	211	1599	1176	1600	1176
6	0	105	0	105	0	105	0	105	0	105	525 2/	357	1600	1088
7	0	85	0	85	0	85	0	85	0	85	425	267	1600	1006
8	0	60	0	60	0	60	0	60	0	60	300	175	1600	936
9	0	34	0	34	0	34	0	34	0	34	170	92	1600	865
10	0	0	0	0	0	0	0	0	0	0	0	0	1600	800
TOTAL	1524		1686		1866		2066		2281		9423	7789	16000	11590
	BENEFITS (Real$)											Real$		Real$
1	133	136	0	266	0	266	0	266	0	266		1333		1600
2	133	134	133	134	0	266	0	266	0	266		1332		1454
3	133	134	133	134	133	134	0	268	0	268 3/		1337		1332
4	133	138	133	138	133	138	133	138	0	269		1353		1202
5	133	135	133	135	133	135	133	135	133	135 4/		1340		1092
6	133	66	133	66	133	66	133	66	133	66		995		993
7	133	48	133	48	133	48	133	48	133	48		905		903
8	133	31	133	31	133	31	133	31	133	31		820		821
9	133	16	133	16	133	16	133	16	133	16		745		740
10	133	0	133	0	133	0	133	0	133	0		665		678
TOTAL	2168		2165		2164		2165		2163			10825		10815

1/ Combining 4th and 5th year funds could purchase a weatherization package, but it violates the administrative feasibility assumption.

2/ Using later year funds for weatherization creates inequities in the distribution of benefits between households.

3/ Annual stream of combined weatherization/assistance benefits equals assistance only benefits.

4/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

TABLE 16

CECA'S HYPOTHETICAL MODEL OF COMBINED WEATHERIZATION AND ASSISTANCE PROGRAM COMPARED TO ASSISTANCE ONLY

(Assuming Low Energy Savings, Declining Real Expenditures, and Plowback into Weatherization Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household										Total W&A		Total	
	1		2		3		4		5					
	W	A	W	A	W	A	W	A	W	A				
	EXPENDITURES (Current $)										Current	Real$	Current	Real$
1	400	136	0	266	0	266	0	266	0	266	1600	1600	1600	1600
2	0	147	432	147	0	292	0	292	0	252	1602	1483	1600	1481
3	0	162	0	162	467	162	0	325	0	325	1603	1370	1600	1368
4	0	184	0	184	0	184	0	184	0	359	1599 1/	1269	1600	1270
5	0	211	0	211	0	211	0	211	544	211	1599	1176	1600	1176
6	588	85	0	225	0	223	0	232	0	232	1585 2/	1078	1600	1008
7	0	97	635	97	0	254	0	254	0	254	1591	1001	1600	1006
8	0	113	0	113	686	113	0	289	0	289	1603	937	1600	936
9	0	133	0	133	0	133	741	133	0	325	1598	864	1600	865
10	0	160	0	160	0	160	0	160	800	160	1600	800	1600	800
TOTAL	2416		2765		3151		3597		4057		15980	11578	16000	11590
	BENEFITS (Real $)											Real$		Real$
1	133	136	0	266	0	266	0	266	0	266		1333		1600
2	133	134	133	134	0	266	0	266	0	266		1332		1454
3	133	134	133	134	133	134	0	268	0	268 3/		1337		1332
4	133	138	133	138	133	138	133	138	0	269		1353		1202
5	133	135	133	135	133	135	133	135	133	135 4/		1340		1092
6	224	43	133	144	133	144	133	144	133	144		1375		993
7	226	55	224	55	133	144	133	144	133	144		1391		903
8	224	58	224	58	224	158	133	149	133	149		1510		821
9	224	62	224	62	224	62	224	62	133	153		1430		740
10	224	62	224	68	224	68	224	68	224	68		1454		678
TOTAL	2744		2755		2852		2753		2751			13855		10815

1/ Combining 4th and 5th year funds could purchase a weatherization package, but it violates the administrative feasibility assumption.

2/ Using later year funds for weatherization creates inequities in the distribution of benefits between households.

3/ Annual stream of combined weatherization/assistance benefits equals assistance only benefits.

4/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

TABLE 17

CECA'S HYPOTHETICAL MODEL OF A COMBINED WEATHERIZATION AND ASSISTANCE PROGRAM COMPARED TO ASSISTANCE ONLY PROGRAM:

(Assuming High Energy Savings, Constant Real Payments, and Reversion to Treasury Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household 1		Household 2		Household 3		Household 4		Household 5		Total W&A		Total	
	W	A	W	A	W	A	W	A	W	A	Current	Real$	Current	Real$
	EXPENDITURES (Current $)													
1	600	0	0	250	0	250	0	250	0	250	1600	1600	1600	1600
2	0	0	648	0	0	371	0	371	0	371	1761	1631	1760	1630
3	0	0	0	0	700	0	0	450	0	450	1600	1368	1936	1655
4	0	0	0	44	0	44	756	0	756	0	1600	1270	2130	1690
5	0	0	0	0	0	0	0	0	0	0	0	0	2343	1723
6	0	0	0	0	0	0	0	0	0	0	0	0	2577	1753
7	0	0	0	0	0	0	0	0	0	0	0	0	2835	1783
8	0	0	0	0	0	0	0	0	0	0	0	0	3119	1824
9	0	0	0	0	0	0	0	0	0	0	0	0	3430	1854
10	0	0	0	0	0	0	0	0	0	0	0	0	3773	1887
TOTAL	600		942		1365		1827		1827		6561	5869	25503	17398
	BENEFITS (Real $)											Real$		Real$
1	320	0	0	250	0	250	0	250	0	250		1320		1600
2	320	0	320	0	0	337	0	337	0	337 1/		1651		1600
3	320	0	320	0	320	0	0	450	0	450 2/		1860		1600
4	320	0	320	33	320	33	320	0	320	0		1666		1600
5	320	0	320	0	320	0	320	0	320	0		1600		1600
6	320	0	320	0	320	0	320	0	320	0		1600		1600
7	320	0	320	0	320	0	320	0	320	0		1600		1600
8	320	0	320	0	320	0	320	0	320	0		1600		1600
9	320	0	320	0	320	0	320	0	320	0		1600		1600
10	320	0	320	0	320	0	320	0	320	0		1600		1600
TOTAL	3200		3163		3180		3277		3277			16097		16000

1/ Annual stream of combined weatherization/assistance benefits equals assistance only.

2/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

TABLE 18

CECA'S HYPOTHETICAL MODEL OF A COMBINED WEATHERIZATION AND ASSISTANCE PROGRAM COMPARED TO ASSISTANCE ONLY PROGRAM

(Assuming High Energy Savings, Constant Real Payments, and Plowback into Weatherization Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household										Total W&A		Total	
	1		2		3		4		5					
	W	A	W	A	W	A	W	A	W	A				
	EXPENDITURES (Current $)										Current	Real$	Current	Real$
1	600	0	0	250	0	250	0	250	0	250	1600	1600	1600	1600
2	0	0	648	0	0	371	0	371	0	371	1761	1631	1760	1630
3	0	0	0	0	700	0	700	0	0	536	1936	1655	1936	1655
4	756	0	0	0	0	0	0	0	756	0	1512	1200	2130	1690
5	0	0	882	0	882	0	882	0	0	0	2646	1946	2343	1723
6	0	0	0	0	0	0	952	0	952	0	1904	1295	2577	1753
7	0	0	1028	0	1028	0	0	0	0	0	2056	1293	2835	1783
8	1111	0	0	0	0	0	0	0	1111	0	2222	1299	3119	1824
9	0	0	0	0	0	0	0	0	0	0	0	0	3430	1854
10	0	0	0	0	0	0	0	0	0	0	0	0	3773	1887
TOTAL	2467		2768		3231		3155		3976		15637	11919	25503	17398
	BENEFITS (Real $)											Real$		Real$
1	320	0	0	250	0	250	0	250	0	250		1320		1600
2	320	0	320	0	0	337	0	337	0	337 1/		1651		1600
3	320	0	320	0	320	0	320	0	0	443		1723		1600
4	320	0	320	0	320	0	320	0	320	0		1671		1600
5	391	0	391	0	391	0	391	0	320	0 2/		1884		1600
6	391	0	391	0	391	0	450	0	391	0		2014		1600
7	391	0	450	0	450	0	450	0	391	0		2132		1600
8	450	0	450	0	450	0	450	0	391	0		2191		1600
9	450	0	450	0	450	0	450	0	450	0		2250		1600
10	450	0	450	0	450	0	450	0	450	0		2250		1600
TOTAL	3874		3792		3809		3868		3743			19086		16000

1/ Annual stream of combined weatherization /assistance benefits equals assistance only.

2/ Cumulative total of combined weatherization /assistance benefits equals assistance only benefits.

TABLE 19

CECA'S HYPOTHETICAL MODEL OF COMBINED WEATHERIZATION AND ASSISTANCE COMPARED TO AN ASSISTANCE ONLY PROGRAM

(Assuming High Energy Savings, Declining Real Payments, and Reversion to Treasury Option)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household										Total W&A		Total	
	1		2		3		4		5					
	W	A	W	A	W	A	W	A	W	A	Current	Real$	Current	Real$
	EXPENDITURES (Current $)													
1	600	0	0	250	0	250	0	250	0	250	1600	1600	1600	1600
2	0	0	648	0	0	317	0	317	0	317	1599	1481	1600	1481
3	0	0	0	0	700	0	0	450	0	450	1600	1368	1600	1368
4	0	0	0	0	0	0	756	0	756	0	1512	1200	1600	1270
5	0	0	0	0	0	0	0	0	0	0	0	0	1600	1176
6	0	0	0	0	0	0	0	0	0	0	0	0	1600	1088
7	0	0	0	0	0	0	0	0	0	0	0	0	1600	1006
8	0	0	0	0	0	0	0	0	0	0	0	0	1600	936
9	0	0	0	0	0	0	0	0	0	0	0	0	1600	865
10	0	0	0	0	0	0	0	0	0	0	0	0	1600	800
TOTAL	600		898		1267		1773		1773		6311	5649	16000	11590
	BENEFITS (Real $)											Real$		Real$
1	320	0	0	250	0	250	0	250	0	250		1320		1600
2	320	0	320	0	0	288	0	288	0	288		1504		1454
3	320	0	320	0	320	0	0	372	0	372		1704		1332 1/
4	320	0	320	0	320	0	320	0	320	0		1600		1202
5	320	0	320	0	320	0	320	0	320	0		1600		1092
6	320	0	320	0	320	0	320	0	320	0		1600		993
7	320	0	320	0	320	0	320	0	320	0		1600		903
8	320	0	320	0	320	0	320	0	320	0		1600		821
9	320	0	320	0	320	0	320	0	320	0		1600		740
10	320	0	320	0	320	0	320	0	320	0		1600		678
TOTAL	3200		3130		3098		3150		3150			15728		10815

1/ Both annual stream and cumulative benefits of combined weatherization/assistance equal assistance only benefits.

TABLE 20

CECA'S HYPOTHETICAL MODEL OF COMBINED WEATHERIZATION AND ASSISTANCE COMPARED TO AN ASSISTANCE ONLY PROGRAM

(Assuming High Energy Savings, Declining Real Payments, and Plowback into Weatherization Options)

	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household													
Year	1		2		3		4		5		Total W&A		Total	
	W	A	W	A	W	A	W	A	W	A				
	EXPENDITURES (Current $)										Current	Real$	Current	Real$
1	600	0	0	250	0	250	0	250	0	250	1600	1600	1600	1600
2	0	0	648	0	0	317	0	317	0	317	1599	1481	1600	1481
3	0	0	0	0	700	0	0	450	0	450	1600	1368	1600	1368
4	0	0	0	0	0	0	756	0	756	0	1512	1200	1600	1270
5	810	0	810	0	0	0	0	0	0	0	1620	1191	1600	1176
6	0	0	0	0	882	0	0	0	0	0	882	600	1600	1088
7	0	0	0	0	0	0	952	0	952	0	1904	1197	1600	1006
8	1028	0	0	0	0	0	0	0	0	0	1028	601	1600	936
9	0	0	1111	0	1111	0	0	0	0	0	2222	1201	1600	865
10	0	0	0	0	0	0	1199	0	0	0	1199	600	1600	800
TOTAL	2438		2819		3260		3924		2725		15166	11039	16000	11590
	BENEFITS (Real $)											Real$		Real$
1	320	0	0	250	0	250	0	250	0	250		1320		1600
2	320	0	320	0	0	317	0	317	0	317		1591		1454
3	320	0	320	0	320	0	0	450	0	450		1860		1332 1/
4	320	0	320	0	320	0	320	0	320	0		1400		1202
5	391	0	391	0	320	0	320	0	320	0		1742		1092
6	391	0	391	0	391	0	320	0	320	0		1813		993
7	391	0	391	0	391	0	391	0	391	0		1955		903
8	450	0	391	0	391	0	391	0	391	0		2014		821
9	450	0	450	0	450	0	391	0	391	0		2132		740
10	450	0	450	0	450	0	450	0	391	0		2191		678
TOTAL	3803		3674		3600		3600		3541			18218		10815

1/ Both annual stream and cumulative benefits of combined weatherization/assistance equal assistance only benefits.

they receive 92% of the benefits they would have received under an assistance-only approach. By the third year, they receive an annual stream of benefits in weatherization and assistance equal to the value of assistance payments they would have received under an assistance-only approach. In the fifth year, they receive a cumulative sum of benefits equal to that which they would have received under an assistance-only approach. Thereafter, there are net added benefits to be reaped.

These results apply whether we assume constant real or declining real payments, because the set of principles we established forces us to do the best we can, given the available resources.

Under the high energy savings assumption, CECA's model works in a slightly different fashion because the packages are larger in cost and savings. In the first year, four of the five households receive 78% of the benefits they would have received in the first year of an assistance-only approach ($250 instead of $320), while the fifth household receives full benefits. In the second year, two households receive full benefits and the remaining three receive between 90% and 99% of their benefits, depending on the scenario. In the third year, the value of the combined weatherization/assistance benefits is larger than under the assistance-only approach, both as an annual stream and cumulative total.

In addition to minimizing the reduction of benefits in the early years, the model brings the total benefits provided to each household through weatherization and assistance into rough parity. Thus, in each scenario, the differential in benefits received by any household is less than five percent.

As the model demonstrates, the combination of weatherization and assistance provides extremely large social gains and can be executed in a way that minimizes its negative aspects.

D. CONCLUSION

The analysis of the actual and potential benefits of weatherization to the low income populations clearly shows that the program is meeting its social goals. It is currently helping the low income population meet its energy needs by saving the average low income household about four percent of its annual income through reduced energy expeditures.

The logic of combining weatherization and assistance is compelling. The social gains that this approach creates, either for the low income population, in terms of more benefits and more weatherization, or for the Treasury, in terms of reduced expenditures, are quite large. The potential negative impacts of converting assistance into weatherization can be easily reduced through careful consideration of the needs of low income households and concern for equity in the distribution of benefits. The administrative obstacles to the approach outlined in CECA's economic model, however, could be significant and should be the topic of a separate study.

APPENDIX A:

THE ECONOMIC CHARACTERISTICS OF VARIOUS ENERGY OPTIONS

A. THE COST OF ENERGY

Estimating the cost of producing energy is often as difficult as estimating the cost of conserving energy.

1. For currently available energy sources there is frequently a rapid fluctuation in market prices.

2. For some of these sources of energy, there is great uncertainty about the control, decontrol or recontrol of prices.

3. For new sources of energy, estimates of future costs are highly uncertain.

In Table A-1, we have provided some estimates of the costs of a variety of sources of energy. CECA's estimates are also compared to earlier estimates made by Resources for the Future (RFF), 34/ which have been adjusted to 1980 dollars. We use 1980 data for all energy sources because we have calculated the cost of conservation in real 1980 dollars. It can be seen that, with one or two exceptions, the estimates of CECA and RFF are fairly close. Since such estimates are frequently subject to debate and since they are also important determinants of the economic rationality of the weatherization program, it is important to understand CECA's methodology in deriving these estimates:

TABLE A-1

COST OF PRODUCING AND CONSERVING ENERGY [1/]

	$1980/Barrel Equivalent	
	CECA Estimate	Resources for the Future Estimate (inflated to $1980)
Conventional		
Oil	51	36
Gas	23-44	24
Electricity	73-109	94-114
Synthetics		
Oil	71-83	71
Gas	41-63	56
Shale	45-67	48-68
Conservation	19-40	---

[1/] See text for the derivation of these estimates.

1. Oil Prices

The price of oil which CECA uses is the national average February 1980 cost of Number 2 oil delivered to the residence, as reported in the Bureau of Labor Statistics Consumer Price Index.

2. Natural Gas Prices

For natural gas prices, we have used two estimates. For the low estimate, we have taken the national average February 1980 cost of gas delivered to the residence for heating users (i.e., 100 therm), as reported in the BLS Consumer Price Index. For the high estimate, we have taken the average of one industry estimate 35/ and one non-industry estimate 36/ of the 1985 price of decontrolled gas, deflated back to 1980 prices using the GNP deflator contained in President Reagan's 1982 budget. 37/

3. Electricity Prices

Again, we used two estimates of electricity prices, both taken from the BLS Consumer Price Index for February 1980. The low figure is the national average price for heat pumps. The high figure is for resistance heating.

4. Synthetic Fuel Prices

For synthetic fuel costs, the low and high estimates are taken from two recent engineering studies of various alternative energy production techniques. 38/ In each case CECA has chosen the process which is lowest in cost among a variety of alternatives. For synthetic oil we have chosen two estimates for the H-coal process and added $9/bbl for refining and delivery. For synthetic gas we have chosen a high Btu Lurgi process and added $8/bbl for transmission and delivery. For shale oil we have chosen a surface retort process and added $9/bbl for refining and delivery.

5. Cost of Conservation

CECA took the cost of conserved energy from the DOE weatherization studies and applied a 10% discount rate including maintenance cost. This provides an estimate most directly comparable to the estimates of the cost of produced energy, since such estimates include all costs and usually use a discount rate of 10% or higher. For the low estimate, CECA includes weatherizations with HVAC modifications. For the high estimate, CECA considers weatherizations without HVAC modifications.

B. CAPITAL INTENSITY

Estimating capital intensity is at least as difficult as estimating the cost of energy. In Table A-2, we present some estimates which are intended to be "ball park" figures. The measurement of capital intensity which we use is $1000 invested per job. For comparative purposes, an earlier set of estimates of

TABLE A-2

ESTIMATES OF CAPITAL INTENSITY 1/

$1980/Job

	CECA Estimate	Conference Board Estimate Inflated to $1980	
		Estimate	Industry
Oil Gas	128	140	Petroleum
Electricity	125	137	Electricity
Synthetics	65-70	53	Chemicals
Conservation	35	31	Stone, Clay, Glass

1/ See text for the derivation of these estimates.

capital intensity, inflated to 1980 dollars, calculated by the Conference Board 39/, is included.

1. Oil and Gas

CECA calculated the estimate of capital intensity for oil and gas by dividing the "total capital" by the total number of employees reported in the Basic Petroleum Data Book. 40/

2. Electricity

CECA calculated the capital intensity of electricity by dividing the labor capital requirements of a "standard" nuclear power plant by the estimated labor requirements as reported in Creating Jobs Through Energy Policy and inflating to 1980 dollars. 41/ The capital requirements of coal plants would be similar.

3. Synthetic Fuels

For the estimate of capital intensity of synthetic fuels, CECA has taken the average capital requirements for the three synthetic processes described in Part A above. For the low estimate CECA has included mining. For the high estimate we have excluded mining.

4. Conservation

CECA derived the capital intensity per unit of conserved energy from a study entitled, "More Jobs Under the Sun." 42/

The similarity between our estimates and those made by the Conference Board is striking. In order to build confidence in our estimates we have examined, from the Conference Board's study, the capital intensity of specific industries which involve processes most like those for energy production and conservation.

We have chosen the chemical industry as the point of reference for synthetic fuels because the nature of the synfuels production process is similar to that used in the chemical industry.

For conservation, we chose as a point of reference the stone, clay and glass industry, because it provides some of the major materials for conservation.

C. LABOR INTENSITY

Table A-3 presents our estimates of the labor intensity of the various energy options. We have chosen jobs per million dollars of output as the measurement of labor intensity.

1. Oil, Gas and Electricity

The estimates for oil, gas and electricity are taken from a DOE publication which projects 1985 jobs per million dollars of output. 43/

2. Synthetic Fuels

Estimates for synthetic fuels are derived from the sources cited in the discussion of the costs of energy, Chapter II. 44/

TABLE A-3

THE LABOR INTENSITY OF ENERGY OPTIONS [1]

	Jobs/$Million of Output/1980 $	
	CECA Estimate	AFL-CIO Estimate
Oil	20	14
Gas		
Electricity	10	10
Synthetics	10-38	29
Conservation	33	39

---

[1] See text for the derivation of these estimates.

3. Conservation

Based on a number of studies which compare the labor intensity of conservation and electricity generation, we set the labor intensity of conservation at roughly 3.25 times that of electricity generation. 45/

For purposes of comparison, we have included the estimates of labor intensity implicit in an analysis of President Reagan's budget prepared by the AFL-CIO. 46/ Once again, the estimates are reasonably close to CECA's.

D. GEOGRAPHIC CONCENTRATION

Table A-4 presents CECA's estimates of the geographic concentration of energy sources. The geographic concentration of an energy source is calculated as the number of states which account for 80 percent or more of the total output. Oil and gas figures are taken from the Basic Petroleum Data Book. 47/ Electricity is taken from the DOE Energy Data Report. 48/ The concentration of synfuel production reflects the geographic distribution of coal production projected for 1985 by the Office of Technology Assessment. 49/ The concentration of shale oil production reflects the fact that one state contains in excess of 80 percent of shale oil reserves. 50/

The estimation of the geographic dispersion

TABLE A-4

GEOGRAPHIC CONCENTRATION OF ENERGY SOURCES 1/

(# of states producing 80% of the total output)

Energy Source	Geographic Concentration
Oil	5
Gas	4
Electricity	17
Synthetic	
Oil	8
Gas	
Shale	1
Conservation	17-40

1/ See text for the derivation of these estimates.

of conservation can be approached in two ways. From one point of view, conservation activity is completely dispersed. It can take place anywhere in the country. In that sense every community can avoid the outflow of dollars and thereby benefit from the direct and indirect stimulus of increased economic activity. The energy production sources considered in the analysis do not, by and large, have this potential. These considerations lead to the high estimate of the dispersion of the economic benefits of conservation. Each state can benefit equally. Therefore, forty states would account for 80 percent of the benefits.

A second approach to the measurement of the geographic distribution of conservation entails two considerations: First, one can argue that conservation is distributed in proportion to the geographic distribution of the population. Twenty-three states account for 80 percent of the population. Second, the manufacture of conservation materials may be concentrated in a few states. The economic activity associated with the manufacture of these materials should be factored into the estimation of the overall dispersion of the impact of conservation activity.

To construct a measure for this second approach, let us assume that five states account for all of the production of conservation materials. If we then take a weighted average of the distribution of population (23 x .67) and the distribution of the output of material (5 x .33), we arrive at an estimate of 17 states accounting for 80 percent of the economic activity associated with conservation. This would be a lower limit estimate.

APPENDIX B:

ADDITIONAL DATA

After CECA had already completed its analysis, several additional sets of data were made available to us. 51/ These new sources of information strongly reinforce the conclusions of CECA's report.

Table B-1 describes the basic data available for eight additional DOE weatherization sites, covering over 400 residences. The average costs of these weatherizations are slightly higher than of those analyzed in the report ($1168 compared to $986). There is a greater reduction in energy consumption (27.5% compared to 26.7%) and the cost of conserved energy is slightly less ($28.04 compared to $29.57). All in all, the results of this additional set of studies are remarkably close to those in the original set, although on a dollar for dollar basis, the latest group is slightly less effective.

Figure B-1 depicts the curve that describes the relationship between the cost of weatherization and reduction in energy consumption based on both the original and subsequent DOE data. It is located in the middle of all the weatherization curves.

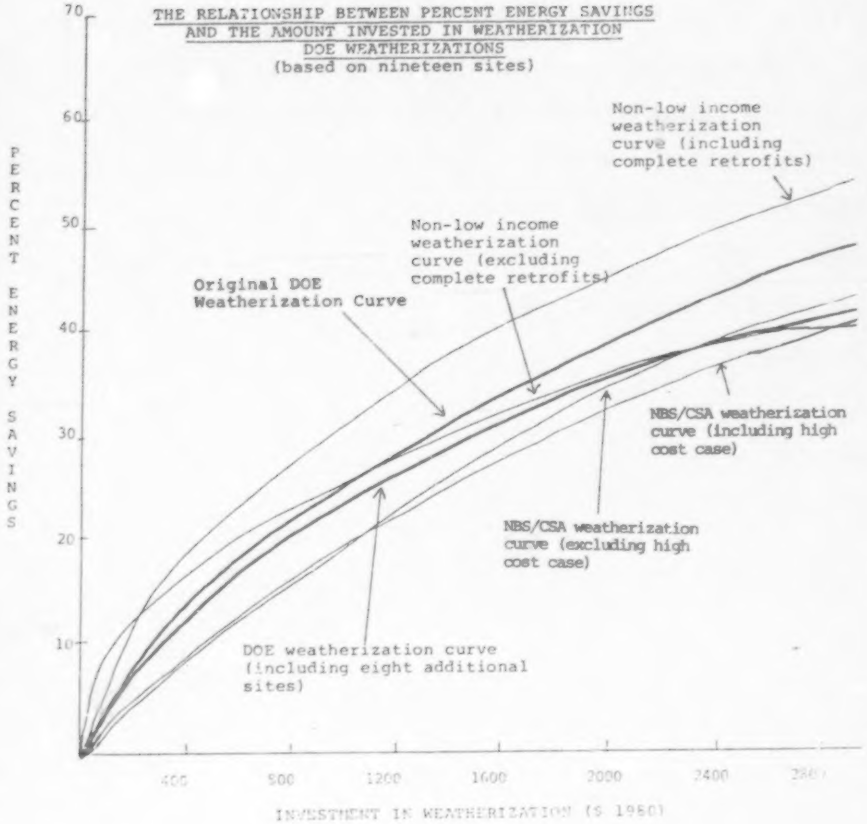
Thus, these data strongly reaffirm our basic conclusion that the DOE weatherization program is effective in terms of both cost and saving energy. Further,

TABLE B-1

CHARACTERISTICS OF ADDITIONAL DOE WEATHERIZATIONS

Site	# of Levels	$ Invested per Unit	Energy Savings (in %)	Energy Savings (MMBTU)	Cost per Barrel (6% discount rate with maintenance costs)
Louisianna	89	915	43	14	37.47
Kansas City	110	1350	29	46	16.84
Minnesota	59	1068	13	12	51.08
Seattle	2	1191	27	24	28.48
Alaska	27	1641	40	105	8.97
South Dakota	120	1554	25	--	--
Livingston	29	922	17	27	27.75
Batavia	5	1500	26	52	16.55
Average:		1118	27.5	40	26.73

FIGURE B-1



THE RELATIONSHIP BETWEEN PERCENT ENERGY SAVINGS AND THE AMOUNT INVESTED IN WEATHERIZATION DOE WEATHERIZATIONS
(based on nineteen sites)

the new information increases the number of DOE houses in CECA's data base to almost 1000. That represents nearly one out of every 700 houses that the DOE program has weatherized. Given the consistency with which the results are achieved by the DOE program and the size of the data base, we believe that extreme confidence can be placed in the estimates and projections developed in CECA's report.

ENDNOTES

1/ The outpouring of policy-oriented research in the 1978-1980 period, conducted by the most prestigious academic and non-academic institutions, suggests the intensity of the debate. See for example, National Academy of Sciences, Energy in Transition 1985-2010: Final Report of the Committee on Nuclear and Alternative Energy Systems (W.H. Freeman and Company, 1979); Hans Landsberg et.al., Energy: The Next Twenty Years: Report by a Study Group Sponsored by the Ford Foundation and Administered by Resources for the Future (Ballinger, 1979); Sam Schur et.al., Energy In America's Future: The Choices Before Us: A Study by the Staff of the Resources for the Future National Energy Strategies Project (John Hopkins, 1979); Robert Stobaugh and Daniel Yergin, Energy Future: Report of the Energy Project at the Harvard Business School (Random House, 1979).

2/ U.S. Department of Energy, The Weatherization Assistance Program: Annual Report for 1980 (November, 1980) Appendix C, Table 2.

3/ See, for example, National Academy of Sciences Energy in Transition..., op. cit. Chapter 2; Office of Technology Assessment, Residential Energy Conservation (July, 1979) Volume I, Chapter 2.

4/ See, for example, Stobaugh, Energy Future..., op. cit. Chapter 6; M.H. Ross and R.H. Williams, Drilling for Oil and Gas in Our Buildings (Princeton Center for Energy and Environmental Studies, 1980); Roger Sant, The Least Cost Energy Strategy (Energy Productivity Center, Carnegie-Mellon University Press, 1979).

5/ See, for example, Union of Concerned Scientists, The Easy Path Energy Plan (Cambridge, 1979); Resources for the Future, Energy in America's Future..., op. cit. Chapter 5.; The Ford Foundation, Energy in the Next Twenty Years..., op. cit. Chapter 3.

6/ The Fuel Oil Marketing Advisory Committee, Low-Income Energy Assistance Programs: A Profile of Need and Policy Options (U.S. Department of Energy, July 1980) pp. 58-63.

[7] That equally tough questions are not raised in regard to other energy programs is lamentable, but not a proper justification for the supporters of low income weatherization to avoid answering the questions.

[8] Joseph Wholey, Evaluation: Promise and Performance (The Urban Institute, 1979) p. 175, contains an example of such an approach.

[9] The studies included here have been summarized in the "Sawhill" report, which has not, unfortunately, been officially released. The data for most of these studies has been published, at least partially, in a number of earlier studies. See, OTA, Residential Energy Consumption, Chapter 2; Art Rosenfeld, Testimony Before the Subcommittee on Energy Regulation of the Committee on Energy and Natural Resources, United States Senate, June 5, 1980.

[10] This research project has been described in a number of publications: Richard Crenshaw, et.al., CSA Weatherization Demonstration Project Plan (National Bureau of Standards, March 1979); Robert Chapman, et.al., Optimizing Weatherization Investments in Low Income Housing: Economic Guidelines and Forecasts, (National Bureau of Standards, February 1980); Richard Crenshaw, "CSA Optimal Weatherization Demonstration/Research Project," a paper prepared for the National Conference on Optimal Weatherization sponsored by the Community Service Administration, December 1980.

[11] The ongoing DOE studies include the sites of Luzerne, Indianapolis, Minnesota, Spokane, Kentucky, Virginia, Utah and Michigan.

[12] The two studies from Wisconsin have been released. See Rene Daniels, Weatherization - A Cost Effective Answer (CAP Services, N.D.).

[13] The Duluth site is based on data provided to CECA by Carol Werner, National Consumer Law Center, Washington, DC.

[14] For example, see Thomas Cook and Donald Campbell, Quasi-Experimentation: Design and Analysis Issues for Field Settings (Rand McNally, 1979), Chapters 2 and 3 for a thorough discussion of threats to validity and the trade-off between internal and external validity. Let us reemphasize the point that we have not evaluated the accuracy or methodological soundness of any of the studies.

[15] Technically speaking, because the non-low income and NBS/CSA studies cover a broader range of investments we would expect them to exhibit greater variability as measured by the coefficient of variation. However, in the subsets, especially the cost subsets, a priori, we can expect similar levels of variability.

[16] A simple statistical technique, called "Meta-Analysis," exists for calculating the probability of finding specific results across groups of studies (see Robert Rosenthal, "Combining Results of Independent Studies," Psychological Bulletin, 1978; Harris Cooper, "Statistically Combining Independent Studies: A Meta-Analysis of Ten Sex Differences in Conformity Research," Journal of Personality and Social Psychology, 1979; Harris Cooper and Robert Rosenthal, "Statistical Versus Traditional Procedures for Summarizing Research Findings," Psychological Bulletin, 1980).

One first calculates the standard normal deviate (Z) for each study. The Z can be used to test the probability that the observed "effect" (i.e. energy savings) occurred by chance. For example, a Z of 1.65 means that there is less than a 5% chance that the observed effect occurred by chance. A Z of 1.29 means that there is a 10% chance that the observed results occurred by chance. The Z scores for those studies on which we have sufficient data to make the calculation are as follows:

	SITE	Z
NBS/CSA	Atlanta	1.80
	Charleston	.78
	Oakland	1.41
	St. Louis	1.32
	Minneapolis	.90
	Washington	4.27
	Tacoma	1.73
	Easton	1.86
	Chicago	3.33
	Colorado Springs	2.00
	Portland	1.38
	Fargo	3.42
DOE	Luzerne	3.43
	Wisconsin 1978	1.36
	Wisconsin 1979	1.30
	Indiana	1.97
	Duluth	2.87

It will be noted that all but two sites have a "probability or significance" level of .10 or less. Because the results are observed in study after study, our confidence in them grows. One can estimate a pooled Z to measure that increased confidence by the following formula:

$$Z = \frac{Z_1 + Z_2 \ldots .}{\overline{N_1^2 + N_2^2 \ldots .}}$$

In this case the pooled Z is 7.9, which is extremely significant.

Another approach is to calculate the number of studies it would require to reverse our confidence in the "effect." The "fail safe" number for a probability of .05 is 436. That is, we would have to find 436 studies in which no "effect" was found in order to reverse our conclusion that weatherization saves energy.

Clearly, we can have considerable confidence in the fact that weatherization saves energy. This does not address the question of how much it saves (i.e. how large an effect it has). That issue is dealt with at great length in the body of CECA's report.

17/ The "Sawhill Report" uses this methodology. The basic approach is modeled on the Office of Technology Assessment, Solar Applications to Today's Energy Needs (Washington, 1978) Volume II, Chapter I. Calculation of dollars per barrel of oil equivalent, in addition to the reasons stated in the text, is chosen because the price of oil has become a widely publicized referent for energy prices. In effect, we have calculated the cost per 5.8 million BTUs, which is the heat content of a barrel of oil. Barrel of oil equivalents can be converted to the unit of measure of other energy sources as follows:

Natural Gas: $/therm = $/barrel oil equivalent ÷ 58.

Electricity: $/KWH = $/barrel oil equivalent ÷ 1700.

18/ OTA, Solar Applications..., op. cit., p. 9 refers to it as a capital recovery factor.

19/ Department of Energy, Economic Analysis: Energy Performance Standards for New Buildings (Washington, January 1980) pp. 4-18.

20/ Robert Chapman, et.al., Optimizing Weatherization..., op.cit., pp. 18-21 and Appendix C.

21/ This 10% rate is the OMB standard as expressed in Circular A-94. There is a caveat that should be stated in using the approach taken in this report, if one wishes to make comparisons with other federal investment programs. By calculating annualized costs and not projecting the stream of future benefits, there is a danger of underestimating the value of energy investments. For example, if one evaluates a water project in a similar fashion, using the same discount rate, and compares it to an energy investment, the implicit assumption is that the stream of benefits from each project will inflate in value at the same rate.

In fact, energy prices have been inflating faster than the CPI. Therefore, one will underestimate the relative value of the energy investment. To compensate, one could use a lower discount rate for energy investments. The correction factor would be the difference between the projected rate of inflation of the two streams of benefits.

However, as long as the comparison is within the energy field (as in Chapter III), there is no need to adjust the discount rate since the same type of benefits (available energy) are being produced by all the alternatives.

22/ Robert Crenshaw, et.al., Optimizing Weatherization ..., op.cit., p. 25, has a suggested maintenance/ replacement schedule. For the purposes of this analysis, we set maintenance costs at 5% in year 5, 10% in year 10 and 10% in year 15. These costs must then be discounted back to the present at the relevant discount rate (see OTA, Solar Applications ..., op.cit., p. 12 for this handling of replacement costs). The resulting cost of the maintenance expenditure as a percentage of initial cost is 18.18% for the 3% discount rate, 13.49% for the 6% discount rate and 7.36% for the 10% discount rate. In making the estimates of cost of conserved energy, we have simply increased the annualized dollar amount by the appropriate percentage. This simplified procedure leads to a very slight underestimate of the total cost -- an underestimate of less than .5%.

23/ The Conference Board, Capital Invested: Road Maps of Industry No. 1799 (New York, January 1977).

24/ The American Gas Association, Comparison of Initial Capital Investment Requirements for New Domestic Energy Supplies: 1980 Update (Arlington, October 1980), p. 2.

25/ This argument has been most forcefully stated by Richard Grossman and Gail Daneker in Energy, Jobs and the Economy (Alyson, 1979). See also, Leonard Rodberg, "More Jobs Under the Sun: Solar Power and Employment," Social Policy, 1981.

26/ The benefits of conservation from an economic point of view may be larger than these comparisons suggest because the cost of conservation is not as sensitive to rising energy prices as are the costs of the production options. Therefore, conservation may help to dampen the energy price/inflation spiral. The argument is as follows:

Every time oil prices rise, other energy prices also rise dramatically. There are at least two reasons for this that are relevant to the conservation/production comparison contained in this report. The production options are capital intensive and therefore sensitive to interest rates, (i.e., the cost of capital), which reflect energy prices closely. The production options are also energy intensive. That is, they use a large amount of energy in the production process. Thus, there is a strong relationship between rising energy prices and the rising costs of the production options.

Conservation, on the other hand, is neither capital intensive nor energy intensive. That is, it requires relatively little capital and uses relatively little energy. Therefore, it is less closely coupled to rising energy prices. Since conservation expands energy resources without reflecting rising energy prices as closely as production options do, it may make a significant contribution to breaking the energy price/inflation spiral.

The fact that conservation is not energy intensive is frequently misunderstood. We have used the NBS/CSA studies to calculate carefully how much energy is consumed in weatherizing the typical house. This includes energy "embodied" in weatherization materials as well as the energy utilized in getting to and from the job (see Table F-1 below). Including the energy required for maintenance, the average NBS/CSA weatherization consumed about 21 million BTUs, but it will save about 992 million BTUs over twenty years. Thus, weatherization has a very positive net energy balance.

27/ A number of efforts to estimate the energy consumption of the poor have been made recently. See, for example, the Fuel Oil Marketing Advisory Committee, Low Income Energy ..., op.cit.; The American Gas Association, Cost of Immediate Total Wellhead Price Decontrol of Natural Gas to Low Income and Disadvantaged Groups (Arlington, 1981); Alan Cohen and Kevin Hallenbeck, "Energy Assistance Schemes: Review, Evaluation and Recommendation," prepared for High Energy Costs: Assessing the Burden, an RFF-Brookings Conference, October 1980; Harold Beebout, Gerald Peabody and Pat Doyle, "The Distribution of Household Energy Expenditures and the Impact of High Prices," prepared for High Energy Costs: Assessing the Burden, an RFF-Brookings Conference, October 1980.

TABLE F-1

ENERGY UTILIZED TO WEATHERIZE THE AVERAGE HOUSE IN THE NBS/CSA STUDIES

Materials Option	Quantity	Unit	Btu/unit 1/	Total Btu
Glass repairs	6.5	sq.ft.	15,366/sq.ft.	99,879
Glass Insulating	115.33	sq.ft.	15,366/sq.ft.	1,772,084
Fiberglass Insulation				
Floor, basement	478.05	bd.ft.	716/bd.ft.	342,284
Walls	403.23	bd.ft.	716/bd.ft.	288,709
Ceilings	1028.85	bd.ft.	716/bd.ft.	736,048
Chemical Insulation				
Floor, basement	174.46	bd.ft.	7500/bd.ft.	1,308,450
Walls	1170.98	bd.ft.	7500/bd.ft.	8,782,350
Ceilings	0	bd.ft.	7500/bd.ft.	0
Cellulose Insulation				
Floor, basement	126.48	bd.ft.	43/bd.ft.	5,438
Walls	1729.25	bd.ft.	43/bd.ft.	7,435
Ceilings	3102.75	bd.ft.	43/bd.ft.	133,418
Rock Wool Insulation				
Floor, basement	0	bd.ft.	716/bd.ft.	0
Walls	0	bd.ft.	716/bd.ft.	0
Ceilings	1061.03	bd.ft.	716/bd.ft.	759,697
Caulking/Weather-stripping	150		7500	1,125,000
Replacement @ 25% of Above Costs				3,857,109
Total Materials				19,285,544
Transportation 5 round trips @ 30 miles/ trip @ 10 miles/gallon				20,100,000
Total Energy Consumed				21,385,544
Total Energy Saved Over Twenty Years				992,000,000

1/ Based on U.S. DOE Draft Environmental Impact Statement, Energy Performance Standards for New Buildings (November 1979)

28/ The regression equation is:

$$y = 39 + .01978x$$

where y = million Btu
x = Heating Degree Days with a base of 65°

Heating Degree Days are taken from the American Gas Association, Gas Facts 1979 (Arlington, 1980), p. 97.

29/ Cooling energy is derived from Dennis O'Neal, Ken Corum and Judy Jones, An Estimate of Consumer Discount Rate Implicit in Single Family Housing Construction Practices, (Oak Ridge National Laboratory, N.D.), Table 8. The equation is derived for new single family construction in 1976. The estimate is then reduced by multiplying by .8, to compensate for the difference between low income and average income practices. The factor of .8 is derived from the Department of Energy, Residential Energy Consumption Survey: Consumption and Expenditures, April 1978 through March 1979 (Washington, D.C., July,1980), Table 7, by dividing low income usage by average usage. The equation is:

$$y = .8 \left[-10.47 + .0037x\right]$$

where y = MMBTU
x = Cooling Degree Days

Cooling Degree Days are taken from Department of Energy, Notice of Proposed Rulemaking: Energy Performance Standards for New Buildings, (Washington, D.C., November, 1979), Table II-1.

30/ Climates with less than 2000 cooling degree days include states north of Maryland, Virginia, Kentucky, Missouri, Kansas, New Mexico, Arizona and California.

31/ O'Neal, Corum and Jones, An Estimate of Consumer Discount Rate ..., op.cit. Table 6 shows that the reduction in cooling energy use that results from weatherization is about 40% as great as the reduction in heating energy use.

32/ The Grier Partnership, "Poor + Old = Cold," Report to the National Council of Senior Citizens, April, 1981.

33/ At this point a note of caution should be introduced into the analysis. Tables 11 and 12 may make the combined approach with declining real payments and plowback option appear more attractive than it actually is. That is, it appears to achieve benefits to the low income population that are almost as large as under the constant real payments scenario with or without plowback, but at a much lower cost to the Treasury. In fact, this is largely a function of the "stopping" points chosen for the analysis.

In the case of the low energy savings assumption, the "declining real payments scenario" achieves much lower energy savings per household than the "constant real payments scenario" at the end of the ten year period utilized in CECA's model. The "declining real payments scenario" results in a reduction in energy consumption of 18% while the "constant real payments scenario" reduces consumption by 30%. If the analysis were carried through to the second decade, the "constant real payments scenario" would produce much larger benefits to low income households.

In the case of the high energy savings assumption, we stop buying weatherization after three $600 (real $1980) packages have been installed. This leads to energy savings of 38% per household in both the "constant" and "declining" real payments scenarios. However, under the "constant real payments scenario," more conservation could be purchased in the first decade. That is, funds would be available to install at least one more package per household (see Table F-2 below). This additional package would raise energy savings to about 42% per household. The result would be larger benefits to low income households in the first and second decades under the "constant real payments scenario."

Thus, the apparent attractiveness of the "declining real payments scenario" is a function of the time frame for analysis and the stopping point for the purchase of weatherization in CECA's model. Declining real payments are not inherently more attractive.

TABLE F-2

CECA'S HYPOTHETICAL MODEL OF A COMBINED WEATHERIZATION AND ASSISTANCE PROGRAM COMPARED TO ASSISTANCE ONLY PROGRA.

(Assuming High Energy Savings, Constant Real Payments, and Plowback into Weatherization Option
and Adding a Fourth Stage of Weatherizations)

Year	WEATHERIZATION PLUS ASSISTANCE												ASSISTANCE ONLY	
	Household										Total W&A		Total	
	1		2		3		4		5					
	W	A	W	A	W	A	W	A	W	A				
	EXPENDITURES (Current $)										Current	Real$	Current	Real$
1	600	0	0	250	0	250	0	250	0	250	1600	1600	1600	1600
2	0	0	648	0	0	371	0	371	0	371	1761	1631	1760	1630
3	0	0	0	0	700	0	700	0	0	536	1936	1655	1936	1655
4	756	0	0	0	0	0	0	0	756	0	1512	1200	2130	1690
5	0	0	882	0	882	0	882	0	0	0	2646	1946	2343	1723
6	0	0	0	0	0	0	952	0	952	0	1904	1295	2577	1753
7	0	0	1028	0	1028	0	0	0	0	0	2056	1293	2835	1783
8	1111	0	0	0	0	0	0	0	1111	0	2222	1299	3119	1824
9	0	0	1220	0	0	0	0	0	1200	0	2400	0	3430	1854
10	1320	0	0	0	1320	0	1320	0	0	0	3960	0	3773	1887
Total	3787		4008		4551		4475		5176		21997	11919	25503	17398
	BENEFITS (Real $)											Real$		Real$
1	320	0	0	250	0	250	0	250	0	250		1320		1600
2	320	0	320	0	0	337	0	337	0	337 1/		1651		1600
3	320	0	320	0	320	0	320	0	0	443		1723		1600
4	320	0	320	0	320	0	320	0	320	0		1671		1600
5	391	0	391	0	391	0	391	0	320	0 2/		1884		1600
6	391	0	391	0	391	0	450	0	391	0		2014		1600
7	391	0	450	0	450	0	450	0	391	0		2132		1600
8	450	0	450	0	450	0	450	0	391	0		2191		1600
9	450	0	497	0	450	0	450	0	497	0		2344		1600
10	497	0	497	0	497	0	497	0	497	0		2485		1600
Total	3921		3886		3856		3915		3873			9451		16000

1/ Annual stream of combined weatherization/assistance benefits equals assistance only.

2/ Cumulative total of combined weatherization/assistance benefits equals assistance only benefits.

34/ Resources for the Future, Energy in America's Future ... op.cit., p. 338.

35/ Glenn C. Loury, An Analysis of the Efficiency and Inflationary Impact of the Decontrol of Natural Gas Prices (Natural Gas Supply Association, April, 1981), Table 6.

36/ Energy Action Educational Foundation, The Decontrol of Natural Gas Prices: A Price Consumers Can't Afford (Washington, D.C., 1981), p. 50.

37/ The Bureau of National Affairs, Fact Sheet on President Reagan's 1982 Budget (Washington, D.C., 1981), p. 50.

38/ E.J. Benty & Associates, Inc., Selected Technical and Economic Comparisons of Synfuels Options (prepared for the Office of Technology Assessment, United States Congress), pp. 4-6; Robert Jelinek and David Gushee, "Synthetic Fuel Costs in Relation to Oil Price," (presented at the Ohio State Seminar on Energy and National Security, February, 1981), p. 3, using the $30/bbl oil price.

39/ Conference Board, Capital Invested ... op.cit.

40/ American Petroleum Institute, Basic Petroleum Data Book: Petroleum Industry Statistics, Volume I, Number 1, (Washington, D.C.), Section V, Tables 2 (July 1980 data) and 3 (April 1980 data).

41/ Testimony of James W. Benson in Creating Jobs Through Energy Policy, Hearings before the Subcommittee on Energy Policy of the Joint Economic Committee of the Congress of the United States, March 15 and 16, 1978, p. 36; Statements by Wilson Clark, Edward Carlough and OTA in the same document lead to roughly the same estimates.

42/ Rodberg, More Jobs ..., op.cit., Table 4. Numerous other studies which make comparisons between conservation and nuclear power suggest a relationship of 1 to 3.5 between the capital intensity of conservation and the capital intensity of nuclear.

43/ U.S. Department of Energy, Creating Jobs Through Energy Policy (Washington, D.C., July 1979), Table C-7 for oil, gas and electric.

44/ See note 38.

45/ See note 41.

46/ AFL-CIO Department of Economic Research, Jobs Impact of President Reagan's Budget Cuts (Washington,D.C., February 27, 1981).

47/ American Petroleum Institute, Basic Petroleum Data Book..., op.cit., Section IV, Table 5B; Section XIII, Table 9b.

48/ Department of Energy, Energy Data Report: Power Production, Fuel Consumption and Installed Capacity Data for 1979 (Final) (Washington, D.C., June 12, 1980), Table 9.

49/ Office of Technology Assessment, The Direct Use of Coal (Washington, D.C., April 1979), Table 5. Although the actual location of a synfuels plant need not be close to the mine, in all likelihood the high cost of transporting coal would lead to a minimization of the distance between mine mouth and conversion plant.

50/ The Energy and Defense Project for the Federal Emergency Management Agency, Dispersed, Decentralized and Renewable Energy Sources: Alternatives to National Vulnerability and War (Washington, D.C., December 1980), p. 110, The Office of Technology Assessment, An Assessment of Oil Shale Technologies: Summary (Washington, D.C., June, 1980), p. 6.

51/ The National Consumer Law Center, Washington, D.C., provided additional reports for Livingston and Batavia, N.Y. The other additions are ongoing DOE evaluations.

Senator **Domenici**. Cynthia Praul, California Energy Commission, will be our next witness.

STATEMENT OF CYNTHIA PRAUL, SENIOR ENERGY POLICY ANALYST, CALIFORNIA ENERGY COMMISSION, SACRAMENTO, CALIF.

Ms. **Praul**. I would like to provide background on my qualifications for this testimony. I am a senior energy policy analyst at the commission. I have been working in the energy policy field for 6 years. I have written several papers on residential energy conservation and utility programs, including one recently reviewing the RCS program, and another on utility energy service corporations which reviews innovative utility roles in conservation and analyzes why at a time of unprecedented interest rates and oil and capital costs, why utilities as well as their customers can have substantial financial benefits from investments in conservation.

I have also served as a consultant to various consumer groups, providing expert testimony in rate cases and adjudicatory proceedings on proposed utility conservation finance programs.

I draw your attention to the "RCS: Retrospection Paper," which has been submitted in advance for inclusion in the hearing record. I think it would be informative to the staff and to you in your deliberations both on 1544 and RCS authorization questions.

I am going to go as quickly as I can to read a couple of paragraphs out of a letter from the chairman of the California Energy Commission, which has been sent to the members of this committee, and which summarises the commission's position on S. 1544, and then I would like to take a few more minutes to elaborate on several RCS issues.

The letter reads:

> The California Energy Commission opposes the creation of an energy block grant, as proposed by S. 1544, to replace categorical grants for State energy funds and to reduce funding levels and terms authorized in the Omnibus Reconciliation Act of 1981. In addition, the commission strongly opposes repeal of the residential conservation service contained in S. 1544. Abolishing the program is a major change in Federal policy and should not be addressed in block grant legislation.
>
> The State energy programs, including low income weatherization, schools and hospitals, energy extension service, State energy conservation program, (EPCA/ECPA), and emergency energy conservation, serve distinctively different target groups and conservation functions. These programs have survived past budget authorization and appropriation processes based on their individual merits. An energy block grant would simply obscure the major program reductions being forced by Federal budget cuts and would potentially be used to dismantle State energy grants altogether.

We believe that providing States with greater spending ability erodes the existing grant structure.

To address questions regarding the RCS mandate in more detail, it has been attacked on the grounds that it is an expensive, excessive regulatory mandate which unduly burdens poor utility ratepayers. I would like to comment on those three items.

First, on the economics. While the $4 billion RCS price tag may seem large, that should be put in perspective of the $33 billion in energy savings it is estimated that the program could achieve. Studies and field demonstrations repeatedly confirm that households can cut their energy use and utility bills by 30 to 50 percent with minor weatherization investments, which translate to hundreds of dollars in annual savings to individual households.

As the other witnesses have mentioned, not only is the energy savings potential very great, it is also the best buy relative to any utility supply option. Conservation measures routinely cost 2 to 3 cents a kW hour. This is compared to California's current oil and coal generation cost of over 8 cents a kW hour. RCS type utility programs implemented prior to NECPA in fact have repeatedly stood the test of cost-effectiveness. The value of energy saved exceeded the cost of new energy supplies usually by a wide margin. This included the cost of consumers installing these measures.

As for the regulatory burden, that which RCS proposes has resulted in large measure from DOE's excessively detailed implementing regulations which have consistently been problematic for States' interests in designing programs suited to their peculiar needs. These concerns could be mitigated by streamlining regulations and selected program requirements. This task has already been completed by the DOE staff. Implementation has been delayed by administration officials.

In California the commission and the State utilities are very interested in streamlining audit requirements. For example, it is looking to innovative Federal action or the increased State flexibility in DOE's proposed revised regulations. With this streamlining we expect we could substantially reduce program implementation costs which would make the net benefits even more parked, DOE estimates by as much as 50 percent primarily in reduced training and audit inspection costs.

Very briefly, the last issue which is a concern regarding the distribution of program costs and benefits unduly burdening lower income ratepayers, it is a more substantial concern but also falls in line with some of the preceding testimony on the weatherization program. Users of RCS type utility programs have predominantly been higher, and there has been little if any participation by renters, although any increased costs these groups will bear related to RCS will be very minimal relative to the phenomenal rate increases which they have had to bear in recent years due to oil and capital cost escalations.

These equity concerns remain a major program design consideration. They shouldn't, however, provide a basis for repeal of the basic mandate. Only through conscientious implementation of an RCS type mandate can we be assured that all customers will have access to assistance they need in making their residences more efficient. With adequate attention to equity considerations and program design, this program participation can be broadened and benefit distributed equitably to substantially mitigate the concerns. That will require conscientious effort on the part of program implementors.

The RCS retrospective paper design measures, which should be considered to address the low income and renters questions, will include prioritizing the delivery of RCS services geographically to benefit low income renters or other customer groups in the organization; requiring utilities to contract with existing local groups for some portion of outreach and audit services; requiring utilities to implement minimal low- cost or no cost measures during the audit; supplementing the audit with financing programs designed to include participation by renters and low income customers; also providing rate incentives to utilities able to demonstrate success in achieving weatherization in rental households. These measures can substantially overcome concerns regarding unduly burdening low income customers and, as well, will be a prerequisite to realizing a significant energy saving potential.

I think using the RCS and utility efforts in a partnership with the weatherization program is important to overcome some concerns you have heard earlier today about not enough money, and what are we going to do with the weatherization program.

Senator DOMENICI. Excuse me.

Ms. PRAUL. I have 1 more minute, at the most, and I will be done.

With these comments, and the more detailed treatment of the retrospective paper, the commission would respectfully submit that a repeal of RCS at this time in the block grant will be premature and adverse to the interests of consumers and the Nation's oil displacement goals. While substantial difficulties have been encountered, operationalizing the mandate, many of these have already been overcome through dogged implementation efforts of States and utilities or by Congress in the ESA amendments, including the utility issues, can be readdressed through changes envisioned in the proposed revision of the DOE regulations and State plan amendments.

Moreover, 375 utilities throughout the country have already made a major investment to get the programs up and running. Announcements are out, customers are requesting audits, auditors have been trained. Utilities in all parts of the country, including California, support the program and have made a major commitment to buy energy supplies from their customers for conservation, the cheapest and fastest way to displace oil or develop new capacity.

Repealing the program midstream would cause widespread confusion and loss of utility conservation momentum. Implementation should be allowed to continue for at least 6 to 9 months. With some actual operational experience, a basis for evaluation would be available, and repeal or amending proposals could be considered at that time.

In urging repeal of this program, special interest groups such as the American Gas Association, simply do not have the interest of consumers and your constituents at heart, but their own narrow and selfinterested goal of increased profits from continued sales of more expensive gas and electricity. The commission feels their repeal argument should be resisted until the program can be judged on its own merits.

Thank you.

[The prepared statement and report submitted by Ms. Praul follow:]

STATE OF CALIFORNIA—THE RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

CALIFORNIA ENERGY COMMISSION
1111 HOWE AVENUE
SACRAMENTO, CALIFORNIA 95825

STATEMENT OF

CYNTHIA PRAUL

The California Energy Commission strongly opposes repeal of the Residential Conservation Service contained in S 1544. Abolishing the program is a major change in federal policy. The Commission is particularly concerned that Congress may repeal the Residential Conservation Service (RCS) in energy block grant legislation. The program is too important to be abolished and should not be addressed in a funding bill.

Contrary to the claims of Department of Energy Officials, the State's energy programs have proven to be effective in improving energy efficiency, in reducing the burden of rising energy prices, and in planning for supply shortages. State agencies, with this federal assistance, have made major contributions towards dealing with our national energy problems. We believe the energy savings attributable to these funds are significant and are saving many more dollars than are spent.

Background

The California RCS program is administered by the California Energy Commission. RCS audits first became available in California in April 1981, and are now available statewide. Over 16,000 audits have been completed and an additional 35,000 have been requested. We project that about 470,000 audits will be completed or requested within the first year. This program, which has our strong support, needs a chance to work before Congress reaches hasty conclusions about its value.

Many research projects demonstrate that RCS is a cost-effective utility program. An in-depth investigation by Department of Energy, using conservative assumptions and minimal response rates, shows benefits of about 3:1 for the utility and positive cash flows for the individuals who make conservation improvements. Several utilities began residential conservation programs before RCS was initiated. Investigations of these programs show that several of these existing programs have already saved energy at a cost well below the price of new supplies.

For utilities seeking new supplies, RCS and other conservation programs offer them "energy supply equivalents" at lower costs than conventional sources of supply. As utilities search for new supplies to meet demand, prices will rise even more dramatically than over the last few years, and the results of the RCS conservation measures will become even more valuable to utilities and to consumers. A lot of these higher priced new supplies could be avoided through the use of conservation measures which also increase home comfort. Our studies show that today conservation costs 2.5-4.5 cents /kWh whereas coal or oil costs 8-8.6 cents /kWh and we project conventional fuel prices will rise much faster than the cost of conservation. Moreover, conservation can begin displacing foreign oil almost immediately, while conventional supplies generally take several years to come on line.

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In addition to increasing the installation of conservation measures, the RCS program meets the needs of consumers and utilities. As you know, the program is voluntary for consumers. Each residence is evaluated separately-- and conservation measures tailored to the particular situation are recommended to the utility customer. Consumers, as a result, have a basis for evaluating the need for conservation, rather than having to rely on the conflicting claims of energy savings currently being made in the marketplace.

Although the market does allocate resources, the question is how efficiently and how fast. In California, with warm summers, and in other states, with cold winters, it is not uncommon to hear of monthly cooling and heating bills over $400. These costs could be cut by one-third to one-half with appropriate insulation, weatherstripping and other conservation measures. RCS information and services can accelerate what the market will eventually accomplish, thus compensating for any lag in market adjustments.

Projected Savings

In its 1981 Biennial Report, the Commission estimated the following natural gas and electricity savings resulting from the RCS program.

	1985		1992		2000	
	10^5 Therms	GWh	10^5 Therms	GWh	10^5 Therms	GWh
Residential Retrofit						
RCS (12,5% Retrofit)	2,000	900	1,250	550	1,500	620
RCS with Incentives (25% Retorfit)	2,000	900	1,250	550	1,500	620

State Incentives

In California, RCS is linked to several state incentives which improve and strengthen the RCS program. A state tax credit requires that an RCS audit be performed before many of the measures qualify. This ensures that the State tax credit subsidizes only cost-effective conservation improvements. Utility low-interest financing and solar demonstration programs also require an audit for certain measures, or require use of the RCS contractor list in order to guarantee a minimum level of consumer protection.

The elimination of RCS would weaken these important state programs.

THE RESIDENTIAL CONSERVATION SERVICE

A RETROSPECTIVE

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CALIFORNIA ENERGY COMMISSION

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The views and opinions expressed herein do not necessarily state or reflect those of the California Energy Commission or the State of California. Comments are welcome and should be directed to the principal author at the California Energy Commission (MS 40), Sacramento, California 95825, (916) 920-6893.

CONTENTS

Page

I. INTRODUCTION 1

II. BACKGROUND 5

Program Summary 5
DOE Implementing Regulations 9
Current Status 10

III. PROGRAM DESIGN ISSUES 12

1. Evaluating RCS Cost Effectiveness 12

- DOE Assessment of RCS Cost Effectiveness 13
- Cost Effectiveness of RCS Prototype Programs 17
- Audit Costs and Response Rates in Existing Programs 20

2. Increasing the Effectiveness of Audits 26

- Overview 26
- Auditor Training 26
- Timing of Audit Delivery 28
- Availability of Financing 29
- Audit Follow-up 31

3. Retrofit Experience and Building Science

Considerations 32

- Heat Flow in Buildings 33
- "Housedoctoring" 35
- Indoor Air Quality 36
- Solar/Conservation Interface 39

4. Equity Concerns in RCS Implementation 40

5. Utility RCS Roles and Competition in the Marketplace 47

- Relationship to Private Suppliers and Contractors 49
- Relationship to Financial Institutions 52

Page

6. Antitrust Considerations in RCS Implementation 56

- Antitrust Issues 56
- Legal Context 58

7. General Issues in State Plan Development 60

- Scope of Program 61
- Cost to States 62
- Public Participation 63
- Inflexibility of DOE's Final Rule 63
- Developing Master Lists 65
- Other Issues 66

IV. EPILOGUE 68

REFERENCES 73

APPENDIX 1. Summary of Legislation by Section 77

APPENDIX 2. Synoposis of DOE Final RCS Rule 85

I. INTRODUCTION

In its first attempt to establish a comprehensive national energy conservation program, the United States Congress in November 1978 passed the National Energy Conservation Policy Act (or "NECPA," PL 95-619). The Act directed the Department of Energy to establish a National Energy Conservation Utility Program, with the objective of encouraging implementation of energy conservation and renewable resource measures and practices in existing residential buildings. Under these provisions, the larger gas and electric utilities were required to offer conservation assistance to residential customers (in buildings with less than four units). This assistance was to include:

- On-site energy "audits" to identify potential savings and estimated costs of conservation and renewable resource measures;
- Educating customers on energy practices;
- Help in selecting and arranging for contractors and loan financing; and
- Consumer protection, including inspection and warranties.

Utilities themselves were prohibited by law from financing or installing most measures, and customer participation--either in requesting an audit or choosing to install recommended measures--was to be entirely voluntary.

Before the passage of the Act, a number of utilities around the country had already initiated their own conservation programs for residential customers. The federal Act did make some provision for "grandfathering" these diverse preexisting programs, but the general thrust of the law was to establish a single, uniform residential conservation program nationwide.

The statute directed the Department of Energy (DOE) to promulgate regulations for the utility program, called the Residential Conservation Service (RCS). Each state was directed to work with its large electric and gas utilities in preparing, pursuant to the regulations, a state residential Energy Conservation Plan for submission to DOE.

All but four states completed and submitted their proposed RCS Plans by mid-1980. To date, DOE has approved 44 state plans and 32 nonregulated utility plans. Six months after final DOE approval of a state plan, utilities in that state must begin sending program announcements to all eligible customers and offering audits and other assistance. Programs should commence in most states in summer 1981.

In the midst of utility and state efforts to comply with the initial RCS requirements, Congress passed the Energy Security Act (ESA) of 1980 which made major changes in the RCS program. These included:

- Extending the program to all multi-family buildings and to small commercial customers;
- Removing the prohibition on direct utility financing and expressly allowing utilities to subcontract for installation;
- Disallowing audit charges to customers in excess of $15; and
- Reducing minimum warranty requirements from three years to one year.

The DOE has proposed implementing rules for the commercial and multi-family programs and for other changes to the original RCS. After a final rule is issued, the states and utilities will have 180 days to prepare plans for implementing the expanded mandate.

In the course of the congressional debate over NECPA and in the development of state plans, question has arisen as to whether RCS is the best means to achieve residential conservation. Specific uncertainties have included whether customers will even request audits in a voluntary program, and when they do whether they will be motivated and financially able to follow the auditor's advice and actually install measures. Will the auditors be adequately trained and the most appropriate measures considered? Will the participants be primarily from higher income groups? Are supplementary utility finance programs necessary to achieve the energy savings the program is predicated upon, and if so, can they be designed to increase the savings lower income ratepayers receive from both the RCS and finance efforts? As program complexity and audit costs increase, can the test of cost effectiveness be met, and in the end result, will a voluntary program approach be adequate to actually achieve the desired energy and consumer cost savings?

In fact, recent policy pronouncements by the Reagan Administration and some members of Congress have raised fresh questions about how rapidly and vigorously the RCS program will be pursued and even whether the program will remain mandatory for utilities throughout the country. Assuming, however, that some version of the RCS program will be the central focus of utility conservation efforts in the residential and small commercial sectors for the next several years, the immediate challenge is to identify the factors that will contribute to successful, cost-effective programs, so that ratepayer money is spent in a fashion which saves energy most effectively and equitably. The following sections provide a background of the RCS program and analyze several outstanding program design issues which include cost effectiveness, audit effectiveness, equity concerns, anticompetitive and antitrust considerations, and general concerns in state plan development. The purpose of the review is to provide background information to legislators and other decision makers who, though not immediately involved in program administration, will be evaluating the mandate and implementation progress over the coming year.

II. BACKGROUND

Program Summary

The National Energy Conservation Policy Act (Title II, part 1) requires the federal Department of Energy (DOE) to establish a residential energy conservation and renewable resource program for the nation's large electric and gas utilities. Utilities covered by this mandate include any investor-owned or municipal utility that sells at least ten billion cubic-feet of natural gas or 750 million kilowatt-hours of electricity during a given calendar year. Under the mandated program, utilities are required to perform energy audits (at a maximum direct customer charge of $15) to determine which federally and state recognized conservation or renewable energy measures are cost effective for a particular residential customer. The utility will then assist the customer in arranging for the purchase, installation and financing of those measures.

Following DOE guidelines (10CFR456, November 1979, as amended), each state was to work with its regulated utilities to prepare an RCS plan. In preparing their plans, states could require non-regulated utilities and fuel oil dealers to participate in the program; any large nonregulated utility or fuel oil dealer which was not included in a state plan was required to submit a separate plan meeting the same requirements and also was required to submit to the Secretary of Energy a biennial report on plan implementation. If a state (or a covered utility) does not have an approved RCS plan, or an approved plan is not being adequately implemented, the Secretary of Energy can promulgate a plan that meets the requirements of the legislation and order its implementation. Violators of such orders are subject to civil penalties.

State Requirements. To be approved, state plans must contain certain basic provisions. First, there must be some provision for informing residential customers of available energy conservation or renewable resource "hardware" measures and low-cost or no-cost techniques for saving energy. The savings likely to result from adopting these conservation measures must also be estimated. Second, the utility must offer each residential customer an energy audit to identify recommended conservation measures for their home, estimate the cost of purchasing and installing them, and calculate the savings in utility bills likely to result from such measures. Third, each state plan must include provisions for supplying customers with lists of conservation and renewable resource product suppliers, installers, and lenders. New customers of a utility must be informed of the RCS program and offered the services within 60 days of hook-up. Finally, in defining utility roles and responsibilities, the state RCS plans must include measures to prevent unfair discrimination among customers, suppliers, and contractors and to avoid deceptive or anticompetitive practices.

The 1980 Energy Security Act required that utility RCS programs inform customers of financing available under the Solar Energy and Energy Conservation Bank Act.* Further, it allowed utilities to offer loan financing programs themselves, if they first seek funds from local lending institutions. In addition, if RCS plans are to include the direct sale and installation of energy conservation measures by utilities, such activities must be carried out under contract with independent suppliers and contractors.

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*The Bank's status is still under debate in the Congress. Final regulations have not been issued, but it may be funded in FY 1982.

States may also include home heating-oil suppliers in their RCS plan, but programs proposed for heating-oil suppliers must take into account their limited resources. While the requirements for oil suppliers are basically the same as for utilities, their participation in the program is voluntary. Home heating-oil suppliers are also authorized to make direct loans to residential customers for the purchase and installation of energy conservation measures.

Conservation and Renewable Resource Measures. For purposes of the RCS audits, the NECPA and DOE regulations carefully define a "residential building" and what residential energy conservation measures must be considered. The NECPA originally defined a residential building as one containing fewer than four dwelling units and a system for heating and/or cooling. The Energy Security Act changed this definition, beginning January 1, 1982, to include in the RCS program buildings with more than four dwelling units (and smaller non-residential customers). Excluded from the RCS program are all new buildings covered by the proposed federal Building Energy Performance Standards.*

Under the program, "residential energy conservation measures" include caulking and weatherstripping of doors and windows; furnace efficiency modification (including new furnaces, flue vent dampers, or electronic ignitions); clock thermostats; ceiling, attic, wall, or floor insulation; water heater insulation; storm doors and windows; multi-glazed windows and doors; heat absorbing or heat reflecting glazed window and door material; load management devices; devices to use solar or wind power for residential use; and "any other measures decided upon by the Secretary" or proposed and approved in a state plan. Under the original Act these conservation measures were to have at least a three-year warranty from the manufacturer, but the 1980 amendments changed this warranty requirement to a one-year warranty for manufacturers, installers, and suppliers.

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*These standards have been deferred by the DOE, pending congressional and administration action.

Utility Financing. Under the original Act, utilities were prohibited from supplying, installing, or financing any residential energy conservation measures unless they were granted a specific exemption. Exceptions were made for utility personnel to install furnace efficiency modifications, clock thermostats, and load management devices. Also, utilities were allowed to extend directly conservation loans to residential customers, provided the loan did not exceed $300.

The 1980 amendments removed the prohibition on utility supply and installation of measures, as long as the utility subcontracted for the actual work with independent suppliers or contractors listed by the state lead agency. Utilities must select contractors in a fashion that does not hinder competition and seeks the lowest price possible for customers. As mentioned previously, the 1980 amendments also ended the prohibition against direct utility financing. If offered, utility loans must be made available whether the work is done by a contractor or the homeowner. The minimum repayment period for utility loans cannot be less than three years unless a customer specifically requests a shorter time period. Finally, before a utility can offer conservation loans, it must first make a maximum effort to seek funds from local lending institutions.

Utility Costs. The federal legislation clearly outlines the requirements for utility accounting and repayment of costs associated with the RCS program. General administrative costs and the direct costs of audits can be expensed or recovered in the rate-base at the discretion of the state Public Utilities Commission; customers can be directly charged only up to $15 (or the actual cost of the audit and inspection service, whichever is less). Conservation loans are to be repaid by customers, but billing for loan payments must be stated separately from billing for regular utility services. Utilities may not terminate utility service if a customer fails to pay for services provided under the RCS program. At the request of a participating lending institution, utilities can collect payments for other loans in the utility's regular billing process.

Anticompetitive Considerations. The 1980 Energy Security Act requires DOE, in conjunction with the Federal Trade Commission (FTC), to monitor the utilities' financing, installation, and supply activities and report to Congress. The FTC is also required to issue a report to Congress by January 1, 1982, on the activities of utilities and home heating oil suppliers in making or arranging for conservation loans and installations. The report must consider the effects of such activities on competition among contractors, suppliers, and lenders within a given service area and to report on the availability and prices of each RCS energy conservation measures and the number of actual and expected installations.

DOE Implementing Regulations

DOE's implementing regulations for the RCS program are extremely detailed, with some 90 sections contained in 8 subparts and 3 appendices. A detailed discussion of the DOE regulations is not within the scope of this paper, but the most significant sections of the Final Rule are summarized and discussed in Appendix 2.

Both the Draft and Final Rules were strongly criticized for being too specific and not taking into consideration the diverse needs and resources of the states. For example, many states complained that the DOE rules did not give them enough time to bring existing programs into compliance with RCS. The requirements for publicizing the RCS program announcement (Section 456.206) and the designs of audit procedures (Section 456.307) were particularly troublesome. Futhermore, the passage of the 1980 ESA will require significant revision of state plans, in most cases after utilities have made major investments in program planning and start-up. Worse, the Reagan Administration may propose further major revisions.

Current Status

In spite of disputes over the regulations, 47 states and territories (and the Tennesee Valley Authority) have submitted state RCS plans for DOE's approval. The states of Utah and North Dakota did not draw up plans because they did not feel they had adequate resources to prepare and enforce a plan. The Energy Division and the Public Utilities Commission of the State of Virginia agreed with the general intent of RCS but did not submit a plan because it was felt they should not be required to manage and finance a federally mandated conservation program. Meanwhile, the utilities in West Virginia are voluntarily participating in RCS, without the benefit of a state lead agency. These states, as well as any state whose plan is not approved (or is not implemented adequately), will fall under the jurisdiction of a federal RCS plan.

Of the 47 states which have submitted state plans, 44 had been approved or received conditional approval from the DOE review committee as of July 1981. The plan of one state, Washington, has been disapproved; the others are still being reviewed by DOE. Thirty-two of the 33 nonregulated utility plans have also been approved. Those with approved plans generally indicate that implementation will be on schedule, with program announcements being distributed in summer 1981.

However, both the status of the present RCS regulations and the expected level of federal fiscal or technical support to participating states and utilities are now unclear. As of this writing, these questions await the final outcome of the Reagan Administration's proposed budget cuts and the regulatory program review by the Secretary of Energy.

III. PROGRAM DESIGN ISSUES

In the midst of this uncertainty and upheaval in program regulations and scope, the states and utilities are nonetheless approaching full-scale implementation. Several issues related to program evaluation and implementation are reviewed in the following sections, including cost effectiveness, audit effectiveness, equity considerations, anticompetitive and antitrust concerns, and general issues in state plan development.

1. Evaluating the Cost Effectiveness of RCS

It is not possible to determine *a priori* the cost effectiveness of the RCS program, since this will depend upon the detailed design and operation of individual utility efforts (e.g., costs of audits, percent of audits that result in retrofits, types of retrofits which do occur) and actual energy savings--tempered by occupant behavior--that result. Thus, cost-effectiveness assessments prior to implementation must be based on best estimates of prospective costs and savings.* Several questions related to RCS cost effectiveness are reviewed in subsequent sections, including DOE's initial estimate of RCS cost effectiveness, the cost effectiveness of similar utility programs that predated the RCS, and experiences in existing programs concerning audit costs and response rates.**

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*It should also be noted that any discussion about overall cost effectiveness begs the equity questions such as those discussed later at page 38 and those of price vs. RCS inducement of energy saving consumer behavior.

**Response rate is defined as the percentage of residential customers who choose to obtain audits. A key assumption is that 75 percent of households receiving an audit will install all measures with a payback period of six years or less (not including tax credits).

DOE Assessment of RCS Cost Effectiveness. DOE has prepared an exhaustive analysis of the expected costs and impacts of the RCS program, excluding the recent extention to apartments and small commercial buildings (DOE, 1979b). DOE's analysis considers conservation measures and renewable resources measures separately. It projects the total program costs of developing and administering the conservation measures part of the program portion at $2.9 billion over the five years of the program. This includes costs to government, utilities, and home-heating suppliers--but not the cost to the consumer for the retrofits themselves. Assuming a 7 percent annual response rate, households are expected to invest an additional $6.7 billion cumulatively for purchase and installation of conservation measures alone. The resultant gross savings in energy costs are estimated at $29.7 billion over the useful life of the measures. The DOE study projects an annual decrease of 0.38 quad in household energy use by 1985 as a result of conservation measures installed under the program. (The total energy saved over the useful lives of all such measures installed is estimated at 8.2 quad.)

For the renewable resources part of the program, the development and administration costs are estimated at $2 billion, with consumer investment in purchase and installation expected to total $3.1 billion. The analysis of the resultant energy savings is assumed to be .0165 quad annually by 1985, and .331 quad over the useful life of RR measures.

These figures thus indicate extremely high cost effectiveness for the conservation portion of the mandate--a $9.6 billion investment to save $29.7 billion in energy costs. While the renewable resources part of the program appears not to be as cost effective, the RCS program taken in its entirety remains cost effective: a total investment of $14.7 billion is expected to yield energy savings of 8.53 quad, presently valued at almost $30 billion. Using a more conservative assumption of a consumer response rate of 1.5 percent,* the conservation measures alone would impose development and administration costs of $1.1 billion and household investments of $1.4 billion, resulting in an estimated gross savings in energy costs of $6.4 billion and energy savings of .08 quads. A 1.5 percent consumer response rate for the renewable resources measures was apparently not calculated, but considering the relatively insignificant aggregate savings resulting from a 7 percent response rate, the total savings from the renewable resources measures at the lower rate of response would be trivial, while program development and administration costs would still be significant. The program costs by sector for both assumed response rates are summarized in Tables 1 and 2.

Thus, according to the DOE analysis, the RCS program is clearly cost effective--the value of saved energy is much greater than total program development, administration, and consumer investment costs. Even under the modest 1.5 percent response rate, the benefit cost ratio is on the order of 3:1. These estimates do not take into account the impacts of tax credits or utility low interest conservation loan programs which, in states such as California, will increase the response rate and make the assumed rate of actual installation (75 percent) more plausible.

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*This lower response rate assumes customers are charged no more than $15.00 for the audit; the 7 percent response above assumed free audits.

Table 1

AGGREGATE TOTAL COSTS[1] OF THE FIVE-YEAR RCS PROGRAM BY SECTOR

7 Percent Annual Response Rate

Sector[2]	Five-Year Aggregate Total Expenditures[3] (Billion $)	
	range	
Governments:		
Federal	$0.021	$0.021
State	0.129	0.209
Local	N/A	N/A
Utilities	3.578	3.578
Home Heating Suppliers	1.157	1.157
Subtotal	4.885	4.965
Subtotal Average	$4.925	
Households	9.804	
Total	$14.729	

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1. All figures are in billions of dollars.

2. Household expenditures are segregated from the other sectors because the savings in energy costs resulting from the RCS Program directly benefit only those households which purchase measures. Governments, covered utilities, and home heating suppliers receive no direct benefits from the savings in energy costs. Industry is excluded because the expenditures of households on energy conservation measures flow to the industry sector, and the costs to this sector are assumed to be recovered through sales to households.

3. Expenditures reflect energy conservation measures component and renewable resources component of the RCS Program.

Source: U.S. Department of Energy (DOE, 1979b).

Table 2

AGGREGATE TOTAL COSTS[1] OF CONSERVATION PORTION OF THE FIVE-YEAR RCS PROGRAM BY SECTOR

1.5 Percent Annual Response Rate

Sector[2]	Five-Year Aggregate Total Costs[3]	
	range	
Governments:		
Federal	$0.021	$0.021
State	0.098	0.172
Local	N/A	N/A
Utilities	0.471	0.471
Home Heating Suppliers	0.496	0.496
Subtotal	$1.086	$1.160
Subtotal Average	$1.12	
Households	1.42	
Total	$2.54	

---

1. All figures are in billions of dollars.

2. Household expenditures are segregated from the other sectors because the savings in energy costs resulting from the RCS Program directly benefit only those households which purchase measures. Governments, covered utilities, and home heating suppliers receive no direct benefits from the savings in energy costs. Industry is excluded because the expenditures of households on energy conservation measures flow to the industry sector, and costs to this sector are assumed to be recovered through sales to households.

3. Expenditures reflect energy conservation measures component of the RCS Program; expenditures associated with the renewable resources component are explicitly excluded.

Source: U.S. Department of Energy (DOE, 1979b).

Cost Effectiveness of RCS Prototype Programs. Several utilities, either voluntarily or under the mandates of state legislatures or regulatory agencies, have implemented residential conservation programs resembling the RCS, and experience in these efforts is useful in evaluating prospective utility RCS program (and the DOE results just described). A review of the prototype RCS-type utility efforts has been conducted by the Technical Development Corporation (Rosenberg, 1980a; Rosenberg and Lanoue, 1980), and though the programs reviewed varied in design and estimated aggregate amounts of energy saved, the studies indicated that the prototype utility residential conservation programs were cost effective when all costs and benefits were taken into account. In all cases, the value of energy saved exceeded the cost of new energy supplies: "The cost of 'conservation energy'--of saving a unit of energy--is still less than that of new energy supplies even when customer costs for installation of energy-saving products are added to utility costs for audits and services" (Rosenberg and Lanoue, 1980). Illustrative costs, with and without customer installation costs, are summarized in Tables 3 and 4.

As the tables show, the relative degree of cost effectiveness varied markedly among utility programs, due to variation in program design, customer response, and the utility system specific value of the displaced energy.* The intent here is not to compare the cost effectiveness of programs but to show that several existing residential audit programs have already demonstrated that energy can be saved at a cost well below that of providing the energy. This is not news to numerous major

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*Cost evaluations were based on utility estimates of energy savings and avoided costs.

Table 3

ESTIMATED COST EFFECTIVENESS OF RESIDENTIAL CONSERVATION PROGRAMS:

Installation Costs to Customers Included

	Costs to utility and customer/unit of energy[1]	New Supplies	
		Gas	Electricity
Pacific Power & Light, 1978 (Oregon)	1.49¢/kWh range 0.87 - 1.99¢/kWh ceiling insulation--storm windows	---	4.2¢/kWh
Pacific Gas & Electric, 1979 (California)	$1.23/mmBtu (gas); 2.9¢/kWh (electricity)	$2.34/mmBtu	6.07¢/kWh ($17.80/mmBtu)
New York Public Service Commission, 1980 (9 utilities)	$2.33/mmBtu (gas) $2.64/mmBtu (oil)	$3 - 5/mmBtu (gas) $7/mmBtu (oil)	---
ICF, Inc., 1976			
- Michigan Consolidated Gas & Public Service Electric and Gas of New Jersey	$.97 - $1.51/mmBtu	$1.75/mmBtu	2.4¢/kWh ($7.00/mmBtu)
- Southern California Gas	$1.66 - $2.99/mmBtu		
Tennessee Valley Authority, 1980	2.1¢/kWh	---	3.1¢/kWh (average cost)

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[1] 1¢/kWh = $2.90/mmBtu

Source: Technical Development Corporation (Rosenberg and Lanoue, 1980)

Table 4

ESTIMATED COST EFFECTIVENESS OF RESIDENTIAL CONSERVATION PROGRAMS

Utility Program Expenses Only

	Cost to company (of the RCS program) to save energy			Cost of new supplies	
	Year	Gas	Electricity	Gas	Electricity
Pacific Power & Light	1978	---	1.15¢/kWh[1]	---	4.2¢/kWh
	1980	---	1.2 - 1.4¢/kWh	---	6.3¢/kWh
Pacific Gas & Electric	1979	12.5¢/mmBtu	0.32¢/kWh	$3.09/mmBtu	6.22¢/kWh
	1980	79.7¢/mmBtu	0.69¢/kWh		
San Diego Gas & Electric	1980	$1.14/mmBtu	1.5¢/kWh	---	---
Tennessee Valley Authority	1979	---	0.67¢/kWh	---	Avg. cost = 3.1¢/kWh

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1. 1¢/kWh = $2.90/mmBtu

Source: Technical Development Corporation (Rosenberg and Lanoue, 1980)

utilities, who in fact have taken up a "demand management" style of operation, with conservation audits and financing the major thrust. Notes Pacific Power and Light Vice President, C.P. Davenport: "We're developing energy--and that's the way we look at it, for 15 mills per kilowatt-hour, as compared to our avoided cost today of 65 mills per kilowatt-hour" (Davenport, 1980).

With regard to the magnitude of utility costs for RCS-type programs reviewed by the Technical Development Corporation, all cost less than 0.5 percent of the utility's current operating revenues and in most cases less than $2.00 per residential customer per year (Rosenberg and Lanoue, 1980). The data for several utilities are summarized in Table 5.

Implementing the full federal requirements of the RCS program will undoubtedly cost utilities more than these early programs because of expanded audit requirements, more extensive publicity, evaluation and other administrative costs, plus the extra cost of the expanded program for multi-family buildings and small commercial customers. In a more recent draft paper, the TDC recently attempted an illustrative a priori assessment of program costs and benefits, albeit limited by the lack of any actual implementation data. The results indicated a positive benefit/cost relationship, though significantly less than the 3:1 estimate by DOE (TDC, 1981, draft). It remains unlikely, however, that RCS implementation will entail significant increases in the fraction of utility annual operating revenues as mentioned above.

Audit Costs and Response Rates in Existing Programs. As noted earlier, program cost effectiveness is centrally dependent on both audit cost and customer response rates for audits and retrofits.

Table 5

TOTAL PROGRAM COSTS

Company	Year	Audit Progam Cost	% of Revenues	Number of Audits	Number of Residential Customers	Cost Per Residential Customer
New York (9 companies)	6/78-9/79	$2.911 million	0.05%[1]	14,900[4]	5,479,000[5]	$0.53
PG&E (California)	1979	$9.29 million	0.2%[2]	25,000	2,795,000[5]	$3.32
Pennsylvania Electric	1979 1981*	$149,000 $2.4 million	0.03%[1] 0.5%[1]	1,442 25,000	506,000	$0.29 $4.74
Seattle City Light	1980*	$406,000	0.4%[1]	500	214,000	$1.90
Northern States Power (Wisc.)	1978	$193,000	0.3%[1]	3,000	130,000	$1.48
Arizona Public Service	1980*	$187,500	0.05%[1,3]	---	275,000	$0.68
Sacramento Metro. Utility Dist.	1980*	N/A	2%	N/A[7]	280,000	$8.50[7]
Laclede Gas Co. (Missouri)	1981*	$3.96 million	N/A	35,000	500,000	$7.92

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1. Percent of 1978 electric revenues.
2. All conservation programs cost $37 million, 0.8% of revenues.
3. Thirteen conservation programs, including RCS, are projected to be 1% of revenues in 1981.
4. Plus 1,300 B audits, 163,000 C audits.
5. 1978 residential customers.
6. Though several studies report total costs per residential customer, under the RCS regulations commercial and other customers will also pay for the program.
7. SMUD's program includes a loan program, arranging services, seminars, commercial-industrial-agricultural audits, weatherization training, solar, and load management.

*Projected

Source: Technical Development Corporation (Rosenberg and Lanoue, 1980)

Audit costs in existing programs ranged from $28 to $100 (Table 6), with an average of $60 - 65. As noted above, higher costs for actual RCS audit implementation is likely, due to inflation and increased complexity of the federal requirements and incorporation of renewable resource measures. Current estimates in California, for example, range from $80 - 168 for the full RCS audit.

Estimating the actual rate of installation of conservation measures involves two components: the percent of customers requesting audits and the percent of audits that result in installations. TDC has done a survey of 14 utilities, and the results are summarized in Table 7. As indicated, audit request rates ranged from 0.1 to 17 percent, varying as might be expected by the amount of the audit cost charged to the customer. Data indicates that at costs above $30 per audit, requests for audits drops off sharply. The 1980 amendments to the NECPA limit to $15 the amount that can be changed directly for an audit, with the balance being borne by all utility ratepayers, but any charge for audits will depress demand by lower income homeowners.

Aggressive promotion is also important in generating a significant number of requests for audits. Though many utilities rely primarily on bill advertising, the Technical Development Corporation study indicates that "bill stuffers" tend to generate only a 1 - 3 percent response rate. Southern California Gas Company, however, found that customer response to direct mail offers was three times greater than the response to bill inserts. Direct mailings of the Massachusetts Project Conserve audit form yielded a 23 percent response rate (Berry et al., 1981).

Table 6

COSTS PER AUDIT FOR SPONSORING UTILITIES[3]

State	Utility	Cost per Audit
Arizona	Arizona	$40
California	Pacific Gas & Electric	50
	Sacramento Metropolitan Utility District[1]	40
	San Diego Gas & Electric	65[2]
Florida	Tampa Electric	90
Georgia	Georgia Power	50[2]
Iowa	Iowa Public Service	60
Maryland	Baltimore Gas & Electric	89
Missouri	Springfield City Utilities[1]	36
New York	Consolidated Edison	90
	Niagra Mohawk	60
	Rochester Gas & Electric	90
Oregon	Northwest Natural Gas	40
	Pacific Power & Light	100
Tennessee	Memphis Light, Gas & Water Division[1]	45
Texas	Guadalupe Valley Electric Coop[1]	75
	Gulf States Utilities	60
	San Antonio Public Service Board[1]	34
Washington	Seattle City Light	75
Wisconsin	Madison Gas & Electric	45
	Northern States Power	72
	Wisconsin Gas	52
	Wisconsin Natural Gas	69
	Wisconsin Power & Light	92
	Wisconsin Public Service	28

Summary Statistics:	Mean	Standard Error
All programs (25)	$61.88	± $21.38
I.O.U.'s (20)	$65.85	± $20.86

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1. Municipal power systems or rural coops

2. The companies explicitly state that these costs exclude overhead.

3. These are the costs that companies report for A audits. Many do not meet RCS standards. A number may exclude some overhead costs.

Source: Technical Development Corporation (Rosenberg and Lanoue, 1980)

Table 7

USE OF AUDIT PROGRAMS

Company	Audit Charge	Response Rate	Installation Rate	Conservation Rate[5]
Baltimore Gas & Electric	$25	0.1%	64%	0.06%
Con Edison (New York)	10	2.7%	44%	1.19%
Rochester Gas & Electric (NY)	10	0.5%	33%	0.17%
Tampa Electric (Florida)	15	0.4%	65%	0.26%
Iowa Public Service	0	17%	35%	5.95%
Northern States Power--Wisconsin	0	8.3%	40%	3.32%
Wisconsin Public Service	0	6.4%	33%	2.11%
Wisconsin Gas	0	6%	70%	4.20%
Gulf States Utilities (Texas)	0	1%	77%[1]	0.77%
Pacific Power & Light (Oregon)	0	7.2%	55%	3.96%
Northwest Natural Gas (Oregon)	0	2.8%	22%	0.62%
Portland General Electric (OR)	0	13.0%	32%	4.16%
Georgia Power	0	N/A	49%	N/A
Tennessee Valley Authority	0	N/A	41%	N/A

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1. Self-selected sample; may overstate installation rate.
2. 35 percent of audited customers sign a contract for insulation or other professional work. PP&L estimates an additional 20 percent to install measures on their own.
3. Rates or signing of contracts by audited customers; see attached note.
4. Percent who say they take a "major" measure (not including caulking or weatherstripping)
5. The conservation rate = response rate x installation rate.

Source: Technical Development Corporation (Rosenberg and Lanoue, 1980)

The most effective method appears to be announcements in the mass media using well-known figures, such as local elected officials. While all types of advertising improve response rates, television and newpaper ads have particular success. Seattle City and Light increased audit requests from 75 to 275 in 1 program of television and radio ads; the New York State Residential Insulation Survey found that most people relied on television (39 percent) or newspaper ads (34 percent) for conservation information (Berry et al.). Carefully coordinated timing of program advertising and implementation capability is, of course, crucial to successful program operation.

For the RCS programs to be cost effective, utility customers must not only request audits but also be motivated and able to implement the recommendations for hardware measures (or no-cost, energy saving "practices"). Preexisting programs varied widely in their effectiveness, with the retrofit rates ranging from 10 - 30 percent. Some programs, however, have reached the 50 percent level, a few even more. While there have been factors identified that contribute to the success of audits, it is clear there is not a complete understanding of all the factors involved or how they contribute to consumer decision making. Some known important factors are:

- The quality of auditor training, both in technical understanding and sales technique;
- The ability of utilities to deliver audits in a timely fashion;
- The type of financing available;

- The tie-in with marketing by suppliers and installers; and
- The way in which utilities follow up on the audit.

These factors are discussed in detail in the following section.

2. Increasing the Effectiveness of Audits

Overview. The major tool RCS programs will use to realize residential energy conservation is the Class "A" home energy audit. Under the provisions of NECPA (Section 215), this audit will consist of an on-site inspection of a residential dwelling by trained personnel to identify specific opportunities for cost-effective energy conservation (or use of renewable resources). Calculations of the costs and estimated savings of various energy conservation measures (or no cost practices) will be completed by manual or computerized methods. The results will then be presented as recommendations to the homeowner.* One key to program effectiveness is thus the individual auditor's ability to arrive at appropriate and complete recommendations and then convince homeowners to take action.

Auditor Training. Auditors must have sufficient technical training to be able to properly identify the opportunities for energy conservation within a given home. In the process they must also try to increase the homeowner's knowledge of conservation and convince the residential customer that the auditor knows what he or she is doing. According to Rosenberg (1980 a,b), the Department of Energy regulations provide a satisfactory basis for states and utilities to design at least the technical aspects of auditor training. Some professionals in residential conservation, however, have expressed reservations as to the capability of these new "experts" (DiAngelo 1980). Hilton (1980) suggests that auditors receive substantial technical training to insure that they will add to, and not simply confirm, homeowners' understanding of energy use and efficiency. Many of those commenting on the Department of Energy regulations felt that it would be too difficult and expensive to provide all RCS auditors such highly technical training (Department of Energy, 1979). With the status of continued DOE technical assistance (including auditor training funding) uncertain, the availability of an adequate number of well-trained auditors may be a major stumbling block for utilities.

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*After one year of RCS operation, a Class "B" or computer analysis of data collected by the resident must be made available.

Just as important as the auditor's technical sophistication, however, is his or her marketing ability as an energy conservation "salesperson". Many persons who have reviewed or operated existing audit programs feel that the relationship between auditor and consumer during the audit is an important factor in motivating consumer action (Rosenberg, 1980b; Lamb, 1980; DiAngelo, 1980; McCluskey, 1980). Although Department of Energy regulations require each state to establish technical training procedures and a certification process for RCS auditors, they do not emphasize training in salesmanship or customer relations. The DOE regards the auditors' general knowledge of energy issues as important in motivating customers, but no specific requirements for customer relations training are required (Department of Energy, 1979).

The importance of integrating customer relations into auditor training has been stressed by those involved in the TVA Home Insulation Program (Lamb, 1980) and is reflected in TVA's RCS plan (Tennessee Valley Authority, 1980). The TVA refers to auditors as "advisors." Certification of auditors in their program requires supervised field work in addition to classroom instruction. Classroom time will include training in customer relations, communications, salesmanship, and the role of the "advisor" in his/her relationship with the residential customer. The California state plan also calls for training auditors in sales and effective communications (California Energy Commission, 1980b).

Timing of Audit Delivery. The success of the RCS program will also be affected by the ability of the utility to schedule audits within a reasonable time after the customer's request. DiAngelo (1980) states that based on his experience as an insulation contractor, it is important to "strike while the iron is hot." When a customer requests an RCS audit, the service should be provided before their interest cools. Rosenberg (1980a) also points out that even an expectation of long waiting time between request and delivery of audits will serve to dampen consumer interest.

The timing of audit delivery will be affected by the number of auditors trained and employed by utilities (or their subcontractors), the magnitude of demand for audits (and how accurately it was forecasted), and the effectiveness of each utility's management of the program. The Department of Energy (1979) is allowing utilities to phase in their audit programs, by staggering start-up dates for different parts of their service area. This should decrease the potential for backlogs that would delay audit delivery (as well as for over-estimates of the demand for RCS audits, which could lead to extra expense in the form of idle auditors). State plans require an audit must be furnished within a fixed period of time, usually 45 days, even if the utility has to hire outside part-time help to meet the workload. Since the demand for audits is expected to be seasonal--peaking in the months preceding high bill-out seasons--marketing techniques will be important in leveling the load somewhat.

Consideration of customers' schedules can also increase participation in RCS programs. Berry, Soderstrom, and Hirst (1981) found that offering audits on weekends and evenings improved customer response. These authors also found that advertising campaigns introduced just before the high bill-out season (fall for winter-peaking utilities and spring for summer-peaking utilities) prompted higher levels of audit requests.

Availability of Financing. While it is generally assumed that lack of capital is a major barrier to energy-saving investments by many consumers (Blumstein et al., 1980), it is unclear how many homeowners perceive this as the major barrier or what sort of financing options will encourage the most energy conservation. Studies by Rosenberg (1980) and Hilton (1980) found that most of those installing conservation measures in response to an energy audit paid in cash, and homeowners who actually invested in conservation expressed little interest in borrowing money to do so. The New York state residential insulation survey found that 7.4 percent of audited customers used financing, but also found that those most likely to want financing are less affluent homeowners, renters, landlords, and those investing in expensive conservation packages (Berry et al., 1981). A DOE study indicates no more than 25 percent of audited customers (usually between 5 - 15 percent) seek financing (DOE, 1978), though recent research by TDC indicates that 40 - 50 percent of the motivated and informed audit customers indicated they felt constrained from making cost-effective improvements by the lack of ready cash.

This disparity may well illustrate the importance of very low- or zero-interest rate considerations in design of utility financing programs. As indicated in studies by Hirst (1979), zero-interest utility loan programs in Oregon and Washington are stimulating homeowners to conserve. Pacific Power and Light in Oregon reports that of the consumers receiving audits, 35 percent of them take retrofit action, and half of these customers use the zero-interest loan program. And in the TVA program, 50 percent of audited households take conservation action, and 70 percent of those installing measures use the TVA financing package. These rates of consumer action compare to 10 - 30 percent for most "audit only" utility programs (Rosenberg 1980a). While this does not clearly resolve the relative importance of interest rates, the low- or zero-interest rates surely contributed to the success of these utility programs.

Leibovitz (1980a) also suggests that partial subsidization of interest rates by utilities is essential to success, citing popular state programs in Maine and New Jersey using subsidized interest rates. He also stresses extended loan payback periods, on the order of 20 years, to further stimulate consumer response. The deferred repayment option such as in Pacific Gas and Electric's ZIP program as approved by the California PUC is also expected to promote customer installation of auditor recommended measures.

While financing may be an important factor in encouraging conservation, it is clear that financing is not the only key to a successful RCS program. Rosenberg (1980a) points out that there are other utilities besides Pacific Power and Light in Oregon which provide zero interest loan programs, and that these utilities, on average, have only a 30 percent ratio of conservation actions to audits. This may be further evidence that aggressive promotion and successful consumer relations through auditor "salesmanship" and follow-up is important. TDC emphasizes that loan programs, even with interest subsidized, "do not sell themselves," and must be carefully orchestrated and integrated with other program components (TDC, 1981, draft).

Audit Follow-up. The way in which utilities follow-up their audits appears to be important in stimulating customers to make energy conservation investments. In many cases, simply completing an audit and providing a list of installers and lenders does not provide enough motivation for consumer action (Lamb, 1980; Rosenberg, 1980b). In light of this, DOE regulations require RCS audit results to be delivered in person. The hope is that this procedure will be more effective in getting customers to act. In addition, utilities cannot simply distribute a list of installers, suppliers, and lenders. They must either provide a list of contractors who have agreed to install the specific measures recommended in an audit, at the cost estimated by the auditor, or assist customers in obtaining bids.

Based on the results and preexisting programs, these DOE requirements should make the RCS program more effective. Oregon's Pacific Power and

Light, for instance, actually obtains bids from contractors on their list, and presents the consumer with a list of bids ranked by price. TVA, while not going quite this far, provides consumers with information on how to select a contractor, encourages them to seek bids, and provides assistance in preparing loan applications (Rosenberg, 1980a). Hilton (1980) recommends that auditors be required to make personal postaudit contact with all customers to check on implementation of recommended conservation measures.

3. Retrofit Experience and Building Science Considerations

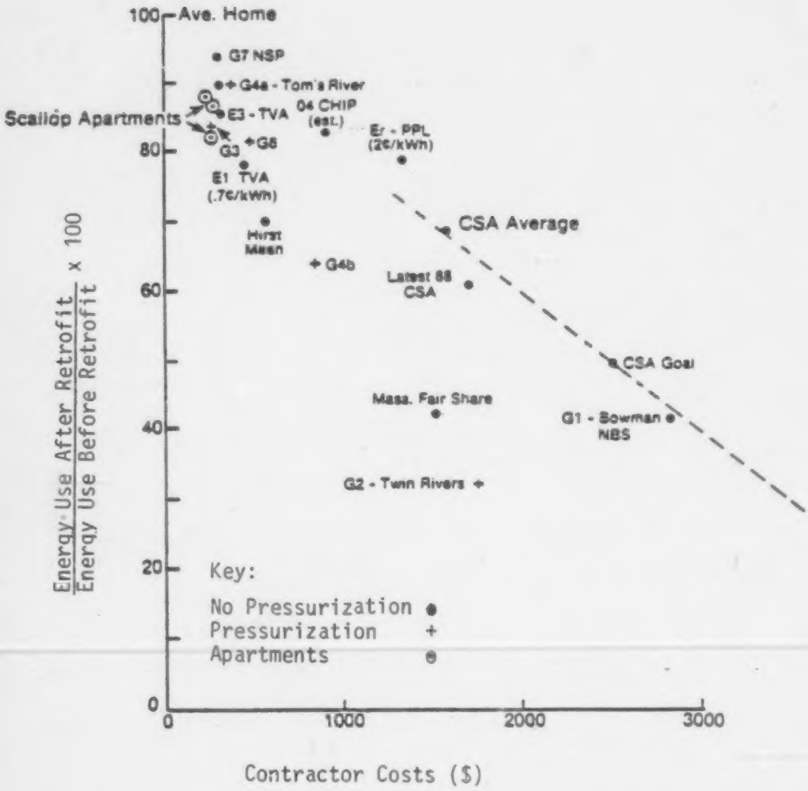
It is becoming widely recognized that improved energy efficiency in buildings can save more energy, more rapidly, and at less cost than virtually any other policy. Thus, the urgency expressed by Congress in establishing a utility RCS mandate is understandable. Engineering studies of the potential savings from residential retrofits suggest a range of 30 - 60 percent per household, depending on building characteristics, climate, and occupant behavior (Ross and Williams, 1980). Another study estimated potential savings in the residential sector at 2.3 million barrels/day oil equivalent by 1990, with comparable savings suggested in the commercial sector (OTA, 1980).

These savings potentials have been confirmed in retrofit field studies, RCS-type utility programs, and low-income weatherization programs (Figure 1). In a major case study completed in Twin Rivers, New Jersey, by the Princeton Center for Energy and Environmental Studies, heating savings averaged 25 percent with inexpensive, partial retrofits, and reached as high as 68 percent after an intensive, research type retrofit (Harrje et al., 1979). Low-income Weatherization Grant programs have achieved 10 - 40 percent savings (Ross, 1980), and a similar range of savings results have been achieved in utility RCS type programs (Rosenfeld, Grimsrud et al., 1980).

The range of savings achieved in these different projects highlights the need for variation in program approaches and specific techniques for retrofitting, as both the audit approach and the choice of retrofit measures will greatly influence not only the energy savings but the cost of achieving them. The range in savings achieved also illustrates to some extent how recent and still incomplete is the present understanding of "building science." Little research was done until the mid 1970s on phenomena such as infiltration and thermal conduction in buildings, and the actual field experimentation and applied research has been underway for an even shorter time. Given the enormous variety of building types, climates, and occupant characteristics that affect retrofit opportunities, it is difficult to overstate the importance of continuing research, and the need for carefully designed and monitored audit-retrofit demonstrations. Several research and demonstration topics with particular relevance to RCS are briefly discussed below.

Heat Flow In Buildings. While some common retrofit measures--attic and water heater insulation, storm windows and weather stripping--are becoming familiar to homeowners, other simple but not yet widely known retrofit techniques can more than double the potential savings by strategically altering the heat flow patterns in the structure. As has been extensively discussed by Dutt (1979 - 1980) and others, these techniques

FIGURE 1



Residential Retrofit: Survey of Actual Energy Savings (%)

(Adapted from Energy Efficient Buildings, Appendix III, "Residnetial Retrofit Survey"), Lawrence Berkeley Laboratory, Berkeley, California. (Draft - July, 1980).

are designed to remedy less obvious paths of heat loss (especially those in homes with frame construction) such as openings in walls and attic floors around plumbing vents and furnace flues, openings made for electrical wiring, and dropped ceilings over kitchens or bathrooms. These more obscure infiltration and heat loss paths are difficult to find without some simple instruments, but once identified are often inexpensive and easy to remedy (Dutt, 1980). If not taken into account, however, they can greatly reduce the actual energy savings from the better known retrofits. Energy savings in the Twin Rivers project, for example, increased from 10 - 15 percent to 25 percent when thermal bypasses were remedied and reached 68 percent when air infiltration losses were significantly reduced (Ross, 1980).

"House-Doctoring." At the present time, RCS measures and audit techniques do not adequately address these retrofit considerations (Becker and Dutt, 1979), the importance of which has been demonstrated by the "house doctor" research at the Princeton Center. This approach entails a pair of auditors who visits an "ailing" house armed with a kit of diagnostic tools, such as a blower door; an infra-red camera; a furnace combustion efficiency analyzer; a digital temperature probe; and several rolls of duct tape, batts of insulation, and cans of caulking foam. A thorough instrumented analysis pinpoints the areas in need of insulation, tightening, storm windows, or other measures. The housedoctors fix the most serious heat leaks ("bypasses"), generally leaving the homeowner with an assured initial energy savings of 10 - 20 percent. These "guaranteed" savings partially compensate for the increased cost of the house doctor visit, compared to a standard RCS audit. The housedoctor also leave behind a list of "conventional" retrofits to be done by a contractor or the homeowner (Sonderregger, 1980).

The emphasis of the housedoctor approach is therefore on: 1) "hands-on" diagnosis of the house; 2) partial retrofit during the first visit; and 3) well-trained and well-equipped auditors. In the most recent version greater emphasis is placed on a more accurate, technically sophisticated analysis of the needed retrofits, using a portable microcomputer program developed by LBL. Utilization of the LBL computerized instrumented audit can greately increase audit sophistication in any utility program whether or not the full housedoctor audit plus retrofit approach is adopted (Sonderregger, 1980).

Indoor Air Quality. With the increased interest in energy conservation in buildings has come an increased awareness of indoor air quality. From the limited monitoring done to date, it appears that some fraction of the existing building stock (entirely unrelated to the presence or absence of energy conserving infiltration reduction measures) is periodically characterized by a significant indoor air quality problem due to pollutants such as nitrogen dioxide and carbon monoxide (from gas furnaces, ranges, and water heaters); particulates (from these same appliances and tobacco smoke); asbestos and formaldehyde (from building materials and furnishings); and radon that is naturally present in soil or groundwater but can be trapped and concentrated in buildings. If these contaminants reach excessive indoor concentrations, they could impair the health or comfort of residents. Moisture can also be a problem in some well sealed buildings, although it may affect wood, paint, and fabrics more seriously than occupants.

Energy efficiency measures designed to reduce infiltration in today's generally leaky homes can save significant amounts of heating and cooling energy but could also conceivably exacerbate any existing problems with indoor air pollution. There is, however, little agreement in the United States or elsewhere on the amount of ventilation air required for health, safety, and comfort of occupants (Hollowell et al., 1979).

In its final environmental impact statement (EIS) on the RCS program, DOE concluded that "with the possible exception of potential problems associated with radon..., it is not believed that the health impacts (of caulking, weatherstripping, and installing storm doors and doors) will be significant." (DOE, 1979c) As measures to mitigate the slightly adverse effect of air infiltration reduction upon indoor air quality, DOE suggested the use of appliance exhaust fans, heat exchangers, air cleaning equipment, and building sealants to prevent radon and formaldehyde emanation into living areas. Due to uncertainty about the health effects of typically encountered indoor air pollutant concentrations, DOE declined to require that the RCS program implement any of these measures.

In response to DOE's EIS, the Environmental Protection Agency (EPA) in 1980 recommended:

> "...that criteria be developed for energy auditors which identify those situations under which tightening of a home can occur without high probability of decreasing infiltration below 1 air change per hour (ac/h). Auditors should be instructed that any time a recommendation is made that would reduce the air infiltration rate below 1 ac/h, effective remedial measures for maintaining air quality should also be prescribed." (EPA, 1980)

Experts on indoor air quality, however, have questioned an approach keyed solely to hypothetical exchange rates, as reduction in air exchange rates alone would not significantly increase the danger from indoor pollutants. Notes Dr. Anthony Nero of Lawrence Berkeley Laboratory:

> "An essential fact is that the amount of these pollutants emitted into buildings, including residences, can vary by factors of ten to a thousand from one case to another i.e., from one home to another. It is this variation in source strength, rather than differences in ventilation or air exchange rate, that is the dominant factor accounting for differences in indoor pollutant concentrations among U.S. residences."
>
> "...Thus modest measures to control infiltration, such as the traditional use of weatherstripping and caulking, will not change indoor concentrations substantially: concentrations that would have been low will remain low and concentrations that would have been unacceptably high will remain so." (Nero, 1981)

The California Energy Commission has studied indoor air pollution in conjunction with its recently approved efficiency standards for new residential buildings (CEC, 1981a; CEC, 1981b; CEC, 1981c). In addition to existing requirements that new houses include weatherstripping and caulking, the Commission Staff's proposed standards would have required caulking of exterior joints and soleplates, minimum infiltration standards for windows, electrical outlet gaskets, and limited infiltration from fireplaces. This combination of measures would have potentially reduced typical new home air exchange rates from 1.3 ac/h to 0.6 ac/h.*

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*The Commission did note that these air change rate (ac/h) calculations are gross approximations, and account only for ventilation between joints and cracks. "Actual total air exchange rates are greatly increased by natural and mechanical ventilation (opening windows, opening doors, use of heating and cooling systems, fireplaces, etc." (CEC, 1981c)

The final standards actually adopted by the Commission embodied a more cautious approach by foregoing any requirement for continuous infiltration barriers and electrical outlet gaskets, which allowed projected air exchange rates of roughly 0.9 ac/h. These standards will nevertheless result in new residential housing construction being considerably tighter than typical existing residences, even those retrofitted with caulking and weatherstripping.

In sum, RCS implementation should not be unduly hindered by concern for indoor air quality. Rather, any potential problems should be addressed directly with measures to control pollutant sources or to remove contaminants from indoor air without sacrificing maintenance of overall building tightness and infiltration control. The RCS auditors can further this effort by identifying those homes where preexisting conditions could pose a problem, (i.e., masonry construction, unvented gas appliances, occupants who smoke) and by suggesting any appropriate direct mitigation measures such as those mentioned above.

Solar Conservation Interface. With the RCS program covering both conservation and renewable resource measures, specific recommendations for using solar energy will be presented to most utility customers for the first time. As solar energy systems are incorporated into retrofit programs, more intensive research is needed to determine the optimal combinations of conservation measures and solar energy systems for different buildings and climates. Better information is needed on how passive and active systems can best be combined and what combinations of conservation and solar measures may be more cost effective than either one alone (Office of Technology Assessment, 1980).

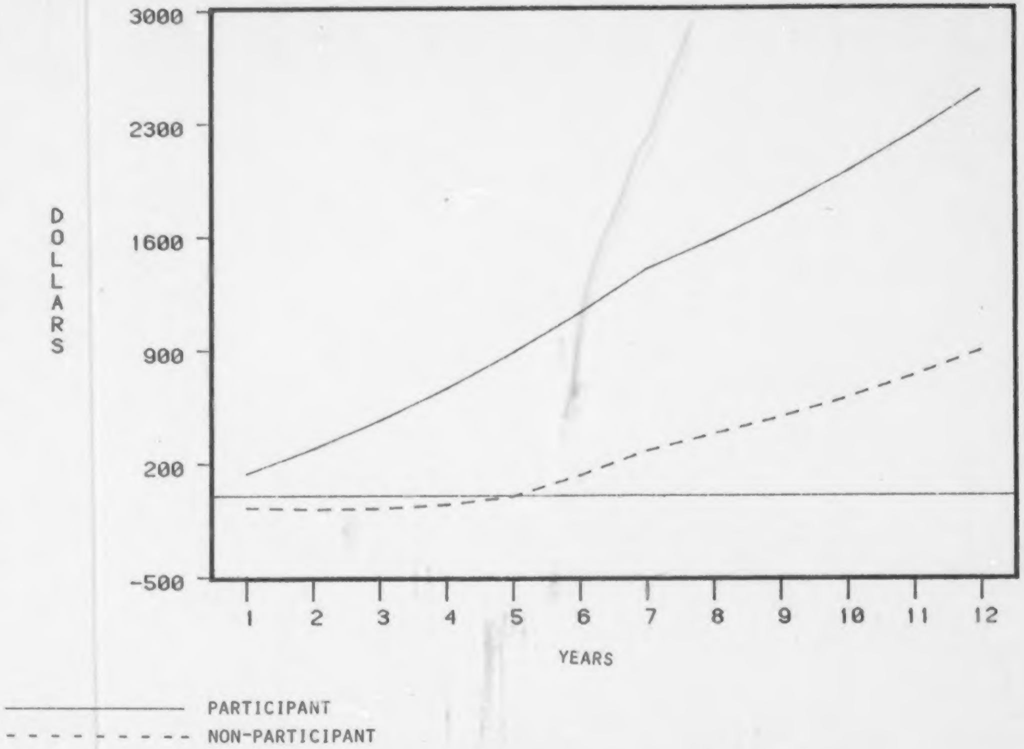
4. Equity Concerns in RCS Implementation.

A particularly pressing concern in implementing the RCS mandate is assuring that the costs and benefits of the program are distributed as equitably as possible. The RCS mandate entails the utilities--through the rate structure--implementing a government taxation and expenditure policy. As such, the program would ideally at least distribute its benefits among classes of consumers in proportion to the incidence of the charges (TDC, 1981, draft).

The specific concern is thus that the federal government and state regulatory agencies not mandate or approve utility programs which result in a large number of customers who pay for the program receive none, or a disproportionately small share, of the direct benefits. Although studies indicate that RCS-type utility programs (including financing) can be designed so that all customers ultimately benefit, the distribution of benefits is skewed heavily in favor of participating households (California Energy Commission, 1979). This disparity in distribution is illustrated in Figure 2, which represents the impact of a hypothetical RCS-type utility program, with zero interest, deferred-payment financing provisions such as in the Pacific Power and Light loan program (Praul and Marcus, 1980). Although nonparticipants do benefit substantially over the program's lifetime, their share is far smaller, and their net benefits are actually negative in the early years of the program.

If all ratepayers had genuinely equal opportunities to participate in utility conservation programs, this concern over distribution of program

FIGURE 2



Benefits of Conservation Financing to Participant and Non Participant Ratepayers.

Source: Energy Service Corporations: Opportunities for California Utilities. (Praul and Marcus, 1980).

benefits might be moot, but this is clearly not the case.* Actual data on past RCS-type utility programs (with and without direct loan financing) bear out the premise that it is predominantly higher than average income, nonrenter customers who use the program:

> "There is a consensus among utility program officials that RCS customers tend to come from higher-than-average income groups. Homes that are audited tend to be in the more affluent parts of service areas. Few customers use unsubsidized loan programs; most are able to pay $200 - 500 in cash for their insulation work. Renters almost never participate; for example Con Edison has audited a total of 27 renters and 3,931 owner-occupants. Renters as a group tend to be poorer than homeowners." (Rosenberg and Lanoue, 1980)

TVA's program participation was 98.4 percent by owner occupants, (ICF 1979), and other utility programs have been restricted to single family or owner-occupied residences (Praul, 1981).

It is urgent that program participation be broadened in full-scale RCS implementation for both equity and energy savings goals. Poor households are most in need of relief from increasing utility rates and tend to occupy a disproportionate share of the nation's older, less efficient housing stock which has the highest potential energy savings payback (National Institute of Building Sciences, 1980).

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*It should also be noted that the concern with nonparticipants, while important, appears to have emerged only in policy discussions of RCS-type utility programs. Historically, little if any attention has been paid to assuring that all ratepayers benefit equally from rate decisions and utility system additions (Ross, 1980). In particular, approval of ratepayer support for "construction-work-in-progress" (CWIP) to fund new utility projects extraordinarily penalizes those who are not responsible—the "nonparticipants"—for increasing energy demand.

As the national data presented in Table 8 indicates, in fact, family income is positively related both to the likelihood that a household will occupy a reasonably weatherized home and that it will implement conservation measures (TDC, 1981, draft).

If it is actually implemented by Congress and DOE, the 1980 Energy Security Act extension of RCS to include all multi-family residences will have some impact in broadening participation in the program. Throughout the rental sector, however, the basic difficulty will remain that property owners must make energy-saving investment decisions, while generally tenants receive the immediate benefit from the improvements. Thus, under the voluntary RCS scheme, landlords will have little incentive to seek or act on any RCS audit recommendations, and participants will continue to be primarily owner-occupants. Rentals account for 26 million (or 35 percent) of all residential units in the United States. (Multi-family and rental sector concerns are discussed in greater detail in the ACEES Proceedings, in the paper by D. Bleviss.)

Though most conservation programs to date have had little or no impact in resolving the problem of split incentives in the rental sector, this does not mean that retrofitting programs inevitably represent transfers from the poor to those better off, and in any case, deregulation of fuel prices and state and federal conservation tax credits probably have much larger equity impacts than RCS programs. But it is clear that conservation programs should be carefully designed to mitigate any regressive distribution effects, as well as to assure that the large energy savings potential of the rental sector is realized. In fact, the consensus among

Table 8

ENERGY-RELATED CHARACTERISTICS OF THE EXISTING HOUSING STOCK (WINTER 1978 - 79) AND CONSERVATION MEASURES UNDERTAKEN (1978)

By 1977 Family Income

	Total Households	Less than $5,000	5,000 to 9,999	10,000 to 14,999	15,000 to 19,999	20,000 to 24,999	$25,000 or more	Total Poor
STOCK '78-'79								
Some or all storm windows and doors and attic insulation	41%	22%	30%	36%	45%	52%	55%	20%
One or more of these types of insulation	45	47	52	48	46	39	38	48
Units with none of these types of insulation	14	31	18	16	9	9	7	32
MEASURES UNDERTAKEN--1978								
Any Measures	33	22	28	33	39	39	38	25
Insulation (Total)	6	3	3	6	6	8	9	4
Attic	4	2	2	4	4	5	7	2
Basement or Sill	2	1	1	2	2	3	3	2
Outside Walls	2	2	1	2	2	3	3	2
Storm Windows	4	2	2	5	4	6	5	3
Insulation and/or storms	10	4	5	11	9	12	14	6
Inexpensive Measures only	24	17	22	23	30	26	23	19

Source: DOE/EIA, Residential Energy Consumption Survey, Tables 7B, 28B.

PPE-1 RCS

participants in the ACEES Santa Cruz Summer study was that equity concerns need not foreclose policy options, such as RCS, from realizing the enormous potential energy and dollar savings available through retrofit. Maximum energy savings, as well as greater equity, can be achieved if utility programs are designed to reach renters and such special populations as lower-income, elderly, and minority persons. Designing a program to in first order benefit these special needs groups would entail:

- Requiring utilities as part of their RCS program to provide all customers with "low-cost/no-cost" measures such as water heater blankets, low-flow plumbing devices, and weatherstripping material;
- Requiring low or zero-interest, deferred-payment loan programs which will be as attractive as possible to owners of rental property and also help assure that "poor risk" homeowners have access to financing;
- Selecting conservation retrofit measures that include necessary basic building envelope repairs (such as fixing broken windows) when done in conjunction with other energy-saving retrofits;
- Prioritizing the delivery of low-cost/no-cost conservation audits and financing programs geographically, to benefit the targeted populations;
- Assuring that utilities contract with local community groups for some percentage of "outreach" and actual RCS audit services;

- Requiring multi-lingual program announcements and advertising; and
- Establishing financial incentives that reward utilities for demonstrated success in retrofitting low-income and rental units.

The California Public Utilities Commission has reviewed equity concerns associated with utility finance programs in detail in their recently completed investigation of Pacific Gas and Electric's proposed zero-interest conservation loan program (CPUC Decision No. 92653, January 28, 1981). They have established precedent for some of the above measures by allowing up to $200 to be spent on basic building envelope repairs, allowing low-income homeowners more favorable credit verification and repayment terms, and requiring multilingual promotional and outreach efforts in minority areas. PG&E was also directed to provide more favorable loan terms to individually metered rental properties and to initiate a program certifying apartments for energy efficiency, in hopes of establishing some landlord incentive. Finally, PG&E was required to submit a plan for insuring that ZIP is made available to renters, the elderly, and minorities (for example); with the owner approval, tenants can purchase conservation measures and require subsequent tenants to continue monthly loan payments until the measures have been paid for.

The Technical Development Corporation work also reviewed equity concerns in some detail and concluded that program operators and overseers must take affirmative steps to get low-income and elderly households, as well as owners and occupants of multi-family buildings to participate.

Specific TDC recommendations included:

"- the enlistment of organizations used to dealing with the "left-out" groups to publicize and, in some cases, deliver the services;

- coordination of RCS activities with targeted housing rehabilitation and social service programs; and
- orchestration of financing programs suitable to low-income owners and owners of property occupied by low- and middle-income households." (TDC, 1981, draft)

These equity concerns also highlight the need to supplement voluntary RCS-type programs with statewide standards requiring the retrofit of all existing dwellings. Such legislated standards are the surest means of implementing rental property retrofit, so that tenants as well as homeowners will benefit from lower utility bills, and the full energy savings potential can be realized.

5. Utility RCS Roles and Competition in the Marketplace

The RCS program and the Congressional debate over its enactment highlight one of the most fundamental institutional changes resulting from the oil price and supply crises of the 1970s. In response to higher prices, consumer energy expenditures are beginning to be redirected from traditional suppliers of energy to those who market alternative "energy service" products, such as insulation or fluorescent lights. This redirection has placed the utilities, historically the monopoly suppliers of electricity and natural gas, in an unprecedented circumstance.

Conservation, which they formerly discouraged in an era of declining marginal costs and aggressive sales campaigns, has suddenly become the premier good. It is also a good which they have had essentially no experience at producing or marketing and for which they hold no monopoly, either "natural" or government-endowed.

Congress, however, in an effort to speed the utilization of conservation and renewable resources, has required the utilities through RCS to begin delivering new types of "energy services" on a relatively massive scale. As the Congressional record reflects, in doing so they raised enormous controversy over the acceptability of utility involvement in nontraditional energy service delivery, particularly the financing and installation of conservation and solar measures. Actual implementation of the Energy Security Act amendments allowing utility direct financing and installation by subcontractor lies with the states, however, and the controversy is likely to continue as they adjust their RCS plans to provide for these new utility roles. In the following sections some of the relevant concerns are reviewed, along with options that the states could consider to resolve conflicts between utilities and (1) private sector suppliers of conservation and renewables* and (2) lending institutions.

As utilities' new roles in energy service evolve, they must attempt to simultaneously satisfy several competing demands, such as maintenance of competition, cost minimization, assurance of equitable consumer access, and achievement of the maximum feasible energy savings.

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*This category would include not only materials suppliers, but service suppliers such as private auditing and energy management firms.

The concern for anti-competitive practices can best be balanced with the others if regulators pay attention to the type of market a utility plans to enter. Competitive issues are obviously most important where the utility is one of the largest suppliers in a given market, or where the survival or market entry of other businesses is dependent upon the demand which the utility either creates or meets. There are also important concerns where utility entry may stifle technical innovation through conservative approaches to serving a large market share. Impacts on competition are less important in markets where the utility's size is not disproportionate relative to other participants, where the survival of existing businesses is not at stake, or (possibly) where no current market exists.

Relationship to Private Suppliers and Contractors. The greatest potential for anticompetitive practices in utility RCS type programs are in those programs competing with contractors who operate in a limited geographic area. The homeowner selects a contractor to do the work; the utility then pays the contractor after a postaudit inspection. Although the utility-lender has a legitimate concern that the work be done properly, competitive considerations suggest that the contractor selection process should not be controlled by the utility. RCS procedures appear to provide adequate safeguards, by establishing a master list of contractors and requiring a utility to furnish the customer at least three names selected at random. However, some members of the solar industry have objected to this procedure, as well as to the whole utility audit and inspection requirement of RCS. They fear that:

- If utilities are in a position to approve solar system designs, innovation would be stifled.
- An audit requirement imposes excessive bureaucratic transactions costs on people who simply want to finance solar systems.
- If utilities rather than existing lending institutions become the major source of loans for solar retrofits, too much power is centralized within the utilities, who, after all, have a substantial investment in competing, conventional energy sources.

Proponents of utility involvement and direction respond that:

- Solar system designs are approved by the Energy Commission through a legislated laboratory testing procedure;
- Utilities should not be forced to finance (with the ratepayers money) solar systems without assuring that they will in fact save energy, particularly since RCS may require utilities to stand behind a warranty if a manufacturer or contractor goes out of business;
- Audits and postinstallation inspections are necessary to avoid wasting scarce utility capital and ratepayer monies on expensive solar retrofits (or conservation devices) where cheaper, more cost-effective measures have not been undertaken;
- While utility audits will impose some transactions costs on a customer, obtaining a conventional loan may impose even more of an administrative burden than obtaining direct financing from the utility (see below); and

- The alternative to utility lending may be no financing at all given the customary lack of bank financing for small projects or poor risk customers.

Where there is a potential competitive impact, the means of alleviating the impact vary with the technology. Where the technology is still evolving (as is the case with most solar technologies) direct marketing by utilities may not only put contractors out of business but may also tend to standardize system designs prematurely. For these technologies, it may be wise to limit or prohibit both utility marketing and installation, but not necessarily direct loans by utilities. Utility quality control through financing criteria, audits, and inspections would help to assure that the ratepayer's money is well spent, particularly since the utility would have no financial interest in promoting a particular system or product. For better established technologies such as ceiling insulation, there may still be competitive impacts due to utility marketing, but the opportunity for cost reductions could be a balancing factor, since the marketing and job-site estimating costs for dozens of private firms to bid on the same home ceiling insulation job may represent a significant share of the final cost. From the viewpoint of the customer, a strictly "private market solution" may not be the most efficient (or convenient). One option is for a utility to seek bids from contractors on a standardized cost per "R-factor" for a specified number of jobs in an area and then choose those contractors with the lowest bid. More realistically, the utility could distribute jobs among all contractors who submitted bids within a certain range of the lowest bid. Utilities who have used this method of contractor selection have sometimes managed to lower insulation costs by 25 to 40 percent, without a significant decline in installation quality. At the same time, if the utility has a role in both insulation financing and marketing, it should not be allowed to restrict its financing to its own services.

Relationship to Financial Institutions. As with contractors, the primary issue in the relationship between utilities and lending institutions is to maintain competition where it helps to minimize costs to the ratepayer (both administrative and interest costs), while assuring that all consumers have equal access to financing.* If the utility has access to lower-cost capital or can administer a program cheaply (because of its existing billing system and RCS audit/inspection activities), it should loan money directly, subject to the requirements in the 1980 Energy Security Act.** If there are other reasons for channeling conservation loans through existing private lending institutions, the utility could still provide interest rate subsidies, "outreach," or technical advice on conservation and solar projects.

Accurate accounting and valid comparisons of costs for different loan programs can be complex, and the results depend heavily upon the utility's method for raising capital. If a utility's sources of new capital for conservation loans are similar to its overall mix of capital revenue sources, capital costs will tend to be relatively high. This is because the rate of return generally paid to common equity is higher than that for preferred stock or debt. Moreover, the utility must in general pay income taxes on the returns to common and preferred stock but not on repayments of debt. Alternatively, if a utility can "leverage" its investment by increasing the proportion of bank or bond debt to utility equity, as it obtains new funds for conservation loans (or any other purpose), its capital costs may be less than those of the lending institutions. It has been shown that utility rate-basing options are more expensive than bank loans, with leveraged utility programs being the least costly option (Kahn, 1980).

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*It should be noted that the lenders did not raise these concerns directly to the DOE or California Energy Commision, nor did they raise them in the California PUC hearings on the PG&E ZIP proposal.

**The Act provides that "...Whenever any public utility undertakes to finance its lending program for residential conservation measures through financial institutions, the utility shall (to the extent such utility determines feasible, consistent with good business practice, and not disadvantageous to its customers) seek funds for such financing from financial institutions located throughout the area covered by the lending program."

Some conventional lending institutions have argued that their administrative costs for conservation loans would be less than those of utilities, because they already have the necessary personnel and procedures in place. However, the operation of the loan program that private lenders envision may be very different from a program run by utilities. Administration of a utility program may be much simpler, especially if the usual criteria for loan qualifying (income, neighborhood characteristics, etc.) might not be necessary, and principal payments may not need to be processed. Moreover, many conventional institutions find loans of less than $1,500 to $2,000 too costly to process and thus the utility would be in the position of administering the more expensive smaller loans, while the financial institutions "skimmed the cream" of larger, more profitable ones.

Finally there are considerations beyond cost and overhead. In particular, reliance on conventional financial institutions may conflict with goals of providing energy-saving devices to low-income people and renters. Private lender programs might understandably choose (or be forced by their own regulatory agencies) to adopt loan qualifying criteria which would prove a barrier to many of those particularly in need of retrofits. A vice president of the Bank of America, for example, formally advised Pacific Gas & Electric that:

> "There is an inherent conflict between the objective of maximum market penetration, particularly of the lower income and of the (rental) market and the required credit quality... The record we have reviewed does not address the financial qualifications for borrower eligibility, and the appraisal procedures and standards to be used...."
>
> "On the issue of security, your prepared testimony speaks of liens on the property being improved... Enforcement of junior liens can be expensive and risky. Equity values may not hold up in declining neighborhoods." (Moran, 1980)

Moreover, lending institutions may not approve of the deferred loan repayment feature that can be of key importance in promoting the market penetration of a utility loan program necessary to achieve the full energy savings potential. The Bank of America letter continues:

> "The inclusion of an amortization program starting immediatedly upon installation and keyed to sharing the savings between the participants, the nonparticipants, and PG&E, would add considerable credibility to the program, and would tend to reduce the degree of support required from PG&E."

Therefore, there may be reasons other than cost for supplementing loan programs of conventional financial institutions with targeted utility loan programs or some form of jointly administered program (subsidized, capitalized, and/or partially underwritten by the utility).

6. Antitrust Considerations in RCS Implementation

As outlined in the preceding section, implementation of the Residential Conservation Service has sparked debate about public utilities involvement in the unregulated conservation and renewable resource markets. As well, concerns have been expressed that certain provisions in the RCS legislation may lead to antitrust violations among utilities, suppliers, and installers in the marketing, financing, and installation of conservation services. Some critics have raised the dangers of price-fixing and market allocation arrangements between suppliers and contractors, of kickbacks from contractors to auditors, and of anticompetitive activity in the lending market. Others are concerned over the opportunity utilities might have for utilities to subsidize unregulated comercial activities with revenues from their traditionally regulated services (cross-subsidization). At present, neither the validity of these claims nor the applicability of antitrust law to public utilities has yet been resolved.

Antitrust Issues

Price Fixing. DOE regulations require utility RCS auditors to provide each homeowner with an estimate of the cost of hiring a contractor to install the suggested conservation measures [44 Fed. Reg. 65669, Section 456.307(c)]. These estimates must be based on "typical local prices for materials and installation...." [Section 456.307(6)(4)]. Some critics fear that as a result of auditors quoting an "average price," actual prices will tend to center around each utility's Estimated Installation Cost, much the same as if installers and suppliers themselves were to exchange price information (Dolan, 1980).

The practice of publishing average prices was of concern to the Federal Trade Commission (FTC, 1979):

> "We are concerned that the process of gathering information and establishing procedures for making estimates, which will require a consideration of prices actually charged for these services in the marketplace may encourage conscious or unconscious agreement on prices among contractors and suppliers."

The Commission also called attention to more formal price-fixing agreements:

> "There is also the possibility that a utility and the contractors doing business in its region might attempt to fix prices, in this case, the contract (containing price information) filed with the utility would be an excellent method of policing the price-fixing agreement."

These concerns have been addressed in RCS by having the state lead agency responsible for preparing the price lists and estimated costs. Information given to the customer is in the form of a range rather than a fixed price, with an explanation that actual costs will vary depending on the specifics of the site.

Market Allocation. A second concern is that market allocation of contractor and supplier services might be the practical result of providing each customer with the names of three contractors from the master list and collecting average price information (DOE, 1980). If the use of estimated installation costs effectively limits price competition, as discussed in the previous paragraph, and a minimal quality of work is assured once a contractor has been placed on a master list, customers will have little basis for choosing one contractor over another. The random referral process required by the programs then might work to assure every participating contractor an equal share of the conservation market.

In addition, the RCS legislation enjoins utilities from activities that "result in providing to any supplier or contractor an unreasonably large share of the contracts for the supply or installation of residential energy conservation measures" [216 (c)], and this provision is seen as possibly leading to market utility allocation among suppliers and contractors (Dolan, 1980 and DOE, 1980).

Kickbacks Among Contractors and Auditors. Under the random referral process a contractor may have a very difficult time increasing his or her share of the conservation market. With utility auditors in a position to influence customers, there is a potential for special arrangements among utilities and contractors and suppliers.

Discouraging Economies of Scale. The random referral process and the provisions of RCS that limit the share of contracts for any one contractor could constrain development of economies of scale in the supply and installation business.

Anticompetition in the Lending Market. A number of questions have been raised concerning utility loan programs in the conservation market (California Public Utilities Commission, 1981). One such concern is that utilities will preempt the market for home weatherization loans by offering financing to residential owners at rates below the prevailing market rates. Another concern is that if a utility offers an attractive loan program, fewer conservation improvements will take place outside that program, and this could adversely effect the do-it-yourself market. Moreover, customers may have less incentive to carefully compare prices among contractors if the money they use for home improvements is not their own, and contractors, responding to this indifference among consumers, might be led to charge exactly the "average" price quoted by the utility. In the end, a conservation market that develops around low interest utility loans might reinforce price stabilization around "average prices" (Dolan, 1980).

Cross Subsidization. As a rule, RCS legislation prohibits utilities from supplying or installing energy conservation measures, but this rule has certain exceptions [NECPA 216(d)(e)]. Those utilities that, on the date of NECPA's enactment, were already supplying or installing measures may continue to do so, and other utilities may be granted waivers of the prohibition by the Secretary of Energy. It has been suggested that utilities exempted from the prohibition might use cross-subsidization techniques to successfully transfer their market power from their regulated "natural monopoly" markets to the unregulated conservation market (FTC, 1981).

Legal Context

In some measure due to the above concerns, the language of NECPA and the Energy Security Act reflect Congress's intent that participation of utilities in the energy conservation market be supervised with an eye toward maintaining competition in the market. However, the relationships between federal antitrust law, the "state-action" antitrust exemption, and utility activities pursuant to NECPA are complex (the recent amendments to NECPA only add to the complexity). While it appears that antitrust violations resulting from RCS activities will not be exempt from prosecution, no conclusions have been reached about the applicability of the antitrust laws to utility conduct (FTC, 1981). NECPA and the ESA amendments each contain "savings" provisions designed to leave intact (though not necessarily apply) the body of federal and state antitrust laws. In the broader context, however, any discussion of the potential antitrust or anticompetitive implications of the proposed program should be considered against the background of a dramatically expanded market for existing and prospective manufacturers and installers of energy conservation measures which would inevitably result from the RCS mandate.

In light of NECPA's references to the federal antitrust laws, it is important to clarify the relationship between those laws and state regulation of public utilities. Until recently, utilities were considered to enjoy broad antitrust exemption. In Parker vs. Brown [317 US 341 (1943)], the Supreme Court articulated a "state action" doctrine, whereby state-approved utility conduct was declared exempt from application of the Sherman Act. However, in Cantor vs. Detroit Edison Company [428 US 579 (1976)], the Court significantly narrowed the state-action exemption. It found "no logical inconsistency" in subjecting a utility to regulation "insofar as it is exercising its natural monopoly powers," while at the same time requiring the utility to meet antitrust standards "to the extent that it engages in business activity in competitive areas of the economy." As a result of this and other decisions, regulated utilities, including municipally owned utilities, may be held liable for anticompetitive conduct when they engage in business in unregulated markets.* Thus, the anticompetitive effects of utility operation in such unregulated markets as the supply, installation, and financing of energy conservation measures may carry antitrust liability unless they are the result of clearly articulated and actively supervised state policy to supplant competition.

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*Subsequent cases of importance include City of Lafayette v. Louisiana Power and Light Company, 435 US 389 (1978); California Liquor Dealers v. Michael Aluminum US, 65 L.Ed. 2nd 233 (1980).

In a related decision, the California Public Utilities Commission concluded in January 1981 that Pacific Gas & Electric's proposed zero interest loan program does not violate antitrust laws by reason of being anticompetitive in the lending market:

> "The antitrust laws do not prevent this Commission from authorizing PG&E to engage in a residential weatherization ZIP program to make conservation measures available to a broad spectrum of PG&E's customers in furtherance of the compelling national and state goals of achieving significant energy savings. Should financial institutions or any other party offer evidence of violation of the antitrust laws with respect to the financing aspects of ZIP..., such evidence will receive full and careful consideration by the Commission." (CPUC, 1981)

7. General Issues in State Plan Development

As reviewed in the background section earlier, a DOE approved State RCS Plan is the main vehicle by which the program is organized within each state. These plans must include the entire procedure for listing and delisting installers and suppliers of energy conservation measures and participating lending institutions, detailed contents of the RCS program announcement to be sent to all residential customers, a detailed description of audits, auditor and inspector training, and other program specifics.

It was not feasible to undertake a detailed survey of all state plans, but the states generally faced similar problems in the task of plan development. The major issues discussed here are the scope of the program in relation to state capabilities, the costs of certain program elements, the apparent lack of public participation in the development of many state plans, the inflexibility of the Department of Energy regulations (especially in relation to measures required to be included in RCS audits), and listing and delisting procedures.

Scope of Program. Even in states as large as California, which has its own energy staff of several hundred professionals, the development of the state plan was not a simple task. While this is undoubtedly due in part to California's strong energy conservation policies and its desire to expand upon the Department of Energy's minimum standards for RCS (California Energy Commission 1980a), it is also a function of the scope and specificity of the basic RCS program. Unlike California, most states have very small energy offices which are funded only through DOE's "basic" and "supplemental" state energy conservation grants. For many of these states, the scope of the RCS program is overwhelming (Barfield, 1980; Rosenberg, 1980b). The states of North Dakota and Utah could not develop state plans due to lack of resources (Department of Energy, 1980b). Many states have simply reiterated the minimum federal requirements in their plans; they lack the staff to be able to customize the RCS program for maximum cost-effective implementation in their region (Rosenberg, 1980b; Leibovitz, 1980b).

This problem is intensified by the fact that the Department of Energy is not providing enough technical assistance to states in need of help in

RCS planning and implementation. Leibovitz (1980a) indicates that the states were given little incentive to develop innovative programs beyond the minimum guidelines specified in DOE regulations and argues that DOE needs to take a much more active role in promoting innovative programs. He feels that the department should recommend to the states various ways of approaching difficult and important issues and in this way possibly stimulate more innovative and enthusiastic response. This alternative approach may be particularly appropriate for DOE when it writes implementing regulations for utility financing programs.

Cost to States. In addition to the scope of the program, the cost of complying with RCS planning requirements raised difficulties for most states. Even the minimum guidelines that most states followed were costly to plan for and will be costly to implement, especially given the limited budgets of most state energy offices (Barfield, 1980). Even developing the California plan has strained the state's budget (McCluskey, 1980).

The most expensive program activities appear to be developing and maintaining the master lists of installers, suppliers, and lenders; developing and maintaining the cost data upon which auditors base their cost-benefit calculations; and delisting investigation. If these activities present financial difficulties for California, without question other states must be straining financially to implement RCS programs. To lessen the impact of these high costs, many states will be charging either the utilities or the contractors a listing fee.

Public Participation. Another much discussed aspect of state plan development is the lack of actual public participation in the planning process. Although some states, such as California and Wisconsin, encouraged comments from the public, this was apparently not so in all states. In Illinois, for example, public participation was not promoted. Leibovitz (1980a) stresses the need for broader public involvement in developing more innovative programs. California's plan, for instance, calls for the formation of local advisory panels within each service area to assist utilities in coordinating their programs on the local level. In addition, a citizen RCS Advisory Committee has been established to advise the Energy Commission on program implementation. This was done in response to comments during the Commission's hearings on the RCS plan (McCluskey, 1980).

A major issue remains with regard to amendments to state plans. Shorey (1980) has strongly objected to DOE's proposal to allow states to waive, for "good cause," public hearings on amendments to state plans for implementing the Energy Security Act or DOE program revisions that may be made in mid-1981. Again, the concern is that an absence of vigorous public participation in this process will make plans much less innovative, less flexible in responding to local concerns, and consequently less effective in achieving energy savings in all sectors, particularly since customer participation in the program is voluntary.

Inflexibility of DOE's Final Rule. Many of those who commented on the Final Rule felt that the DOE targeted the overall RCS program at states with underdeveloped conservation agendas, and thereby acted to constrain innovative utilities (Federal Register, 1979). Those states which had utilities operating conservation programs and had carefully analyzed and tested program measures were treated identically to those states which had no conservation programs and had not researched various approaches to conservation. Respondents to the Final Rule suggested, for example, that the decision regarding inclusion of active and passive solar systems and wind systems as program measures not be made at the national level but left to the states. It was suggested that these measures only be included in those geographical areas that a state believed would benefit from it. Several utilities questioned DOE's decisions on the appropriateness of solar domestic water heating systems in their regions; some protested its inclusion by DOE, while others protested its omission. DOE's response was to reexamine its climatic data and econometric models; in the end, each of the renewable resource measures was retained in the Final Rule. This infuriated many states, not so much because they thought their data base was better than DOE's, but because DOE was operating on the assumption that states would abuse any flexibility they were granted.

A number of commentators requested that DOE be flexible in allowing ongoing programs to continue, thus giving utilities and states more time to bring existing programs into compliance with the DOE requirements. There were also requests to allow equivalent programs as a permanent substitute for the program outlined in the rule. In general there was little sympathy to this request on the part of DOE, and most states chose not to deal with the complicated approval process. Some states also complained that even though their plan was almost identical to DOE's rules, the DOE returned their plan requesting that minor changes be made.

Developing Master Lists. One of the most burdensome but potentially important activities for states is establishing the master lists of suppliers, installers, and lenders. This includes developing application forms, distribution methods, and listing and delisting procedures, and keeping the master lists up-to-date. This process was made perhaps unnecessarily difficult due to the inflexibility of the DOE rules precluding the use of preexisting state services on agencies such as the Contractor's Licensing Board and Bureau of Consumer Affairs.

Consumer protection is stated as the prinicipal motivation behind the listing process. Once the RCS program is in operation, if a consumer makes a complaint or an inspector discovers a violation, the listing agency is notified. The agency can "delist" a supplier, lender, or installer for failing to meet the RCS criteria, which include installing energy conservation measures that meet Department of Energy standards (including warranties); compliance with all federal, state, and local laws; and carrying proper insurance (Department of Energy, 1979).

While listing may pose the threat of anticompetitive practices if all potential suppliers, installers, and lenders are not notified of the program, it is the process of delisting that has raised the most concern. In California, if a consumer complaint or a postinstallation inspection uncovers a violation, the participating business is requested by the listing agency to rectify the situation. If the business fails to resolve the problem on more than one occasion, delisting can be initiated.*

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*If the situation in need of correction threatens public health or property, however, only one such failure is necessary before delisting.

Many concerned parties, including the chairman of the California State Contractor's Licensing Board, strongly object to the fact that delisting can occur summarily. In both the California and the TVA plans, for RCS, the decision on whether to delist a business immediately, or instead to initiate an investigation and hearing process, is made at the discretion of the listing agency. While immediate delisting will obstensibly occur only in the most serious of cases, some contractors are concerned that the present system may work to deny due process of law (DiAngelo, 1980).

In a legal sense, due process is not an issue in cases of special agreements, such as agreements by contractors to abide by the RCS requirements. In this case, it is clear that a contracter who violates this previous voluntary agreement and refuses to rectify the violation may be delisted accordingly. However, if the complaint involves a violation of existing criminal or civil law, immediate delisting might have the effect of depriving contractors of due process. In California, the State Contractors Licensing Board already has standard procedures it uses in cases of malpractice, including an appeals process. This issue is especially important in California, since the state's new energy conservation tax credit relies heavily on the RCS audit process to establish eligibility for tax credits. Consequently, unlisted or delisted contractors could be excluded from much weatherization business.

Other Issues. An exhaustive treatment of the myriad issues which have arisen in state plan development is not feasible, but other questions of continuing significance include:

- How can the needs of utility customers in geographic areas not covered by a state plan be served?

- How can small home heating oil suppliers find the resources for program participation during a severe financial squeeze due to rising prices, conservation, and fuel switching?

- How can the varying impacts of conservation actions on gas utilities be taken into consideration, given their particular supply sources, contractual commitments (such as take-or-pay contract), or federal curtailment policies?

- How can utility programs best be designed to reach special needs groups? What, if any, marketing techniques will be most successful, or is there something inherent in the utility-customer relationship that irrevocably "alienates" special needs customers?

- How can the need not to discriminate among products and not stifle innovation (which lengthens audit time and measure lists) be balanced with the need to keep audit time and costs within practical limits?

IV. EPILOGUE

The RCS mandate is based on the presumption that homeowners are not being economically rational in their conservation investment decisions because they lack trustworthly information regarding the technical nature and benefits of these improvements. The program is thus designed to correct a failure of the market, i.e., imperfect information on the part of consumers.

As was noted earlier, in the course of the congressional debate over NECPA and in the development of state plans, question has arisen as to whether RCS is the best means to achieve residential conservation. It seems evident that RCS will succeed in providing consumers with information, thus remedying the aforementioned market failure, but will it be adequate to actually achieve the desired energy and consumer cost savings? Specific uncertainties have included whether customers will even request audits in a voluntary program, and when they do, whether they will be motivated and financially able to follow the auditor's advice and actually install measures. Will the participants be primarily from higher income groups? Are supplementary utility finance programs necessary to achieve the energy savings the program is predicated upon, and, if so, can they be designed to increase the savings lower-income ratepayers receive from both the RCS and finance efforts?

Will a test of cost effectiveness be met, and, in the end result, will a voluntary program approach be adequate to actually achieve the desired energy and consumer cost savings? How should the utilities new roles in energy service delivery be circumscribed to not unduly burden competition or raise antitrust disputes? These concerns and others have been explored in this review, and, while none can be definitively resolved without the benefit of actual program implementation experience, some overall conclusions can be drawn.

First, it surely appears that near-term improvements in program design can be made, as outlined in some of the preceding sections. Immediate implementation efforts should be made, for example, to require auditor capability in customer relations and salesmanship and to streamline audits to keep costs as low as possible. As well, lower income neighborhoods should be targeted and programs designed to assure utilities contract for audit/outreach services with community groups. Provisions should be made for installation of low-cost/no-cost measures during the audit. Supplementary programs for landlord incentives should also be designed and uniform mandatory retrofit requirements pursued.

A more fundamental and important conclusion is that although legitimate program design concerns do exist, none appear insurmountable or necessarily preclude implementation of the program as scheduled. Many have already been addressed in state plans or could be with modest plan adjustments. Others, such as participation and installation rates and program cost-effectiveness simply cannot be assessed a priori. And, until actual implemention data is available, they provide no basis for rejecting the program. They in fact instead suggest that implementation proceed as quickly as possible in concert with a conscientious monitoring and research program. If the monitoring is done capably and the research adequately funded, some basis for a thorough program evaluation, redesign, or cancellation could be established within 6 - 18 months.

The nature of this needed research has been outlined elsewhere in this report. As noted in Section III, pressing research topics include both basic and applied building science research and field measurements of actual retrofitted houses, as a means of continued refinement of the audit procedures and listed measures. Experimental programs using instrumented, "hands-on" audit-retrofit approaches need to be funded as well as continued evaluation of the health and mitigation implications of decreased indoor air quality.

Research is also needed on consumer behavior in order to evaluate the factors underlying response rates, establish energy price elasticities, and investigate the relative importance of reducing energy bills versus increasing comfort, and to explore the use consumers make of the conserved energy.

This research will clearly be complemented by the data gathered in specific program performance monitoring activities. Key questions for evaluation of utility programs or retrofits by private contractors include:

- What is the magnitude of customer response to marketing activities, e.g., offers of home energy audits?
- What are the characteristics of the customers and types of housing being reached? Are special-needs groups being served?
- How quick is the response to customers' requests for audits or actual installations?
- How many actual retrofits occurred, and to what extent can they be attributed to a given program (as opposed to tax incentives, response to rising energy prices, etc.)?

- What measures are retrofitted, and are they done in the most cost-effective sequence?

- What overall energy savings are being achieved?

- What are the rates of postinstallation inspection? What is the quality of installations and equipment performance? How well trained are the auditors? Are the listing/delisting procedures functional and acceptable?

- How do the costs and results of the various utility and different state programs compare?

Only with answers to these questions can the basis for program design adjustments (or for outright rejection) be established.

This detailed monitoring is also required to close the loop between conventional energy demand forecasting, utility supply planning, and the consideration of conservation and renewables as "energy supply equivalents." While in the past there was often little or no economic penalty for utility overbuilding, the present circumstances of rapidly rising costs of new energy supplies merit a more immediate connection between conservation-related demand reduction and utility investments in new capacity. This linkage in fact is crucial to achieving the full cost savings from RCS and related utility programs.

Putting conservation and renewable energy programs on a common footing with generation capacity planning does, however, require constant monitoring of program effectiveness in order to reach the optimal combination of utility investments in conventional capacity and alternatives.

The RCS experiences to date perhaps best illustrate that it takes more than just passing a law and writing regulations to get things to occur effectively and efficiently on a large scale. However, the magnitude of the task (and potential energy savings) of retrofitting the United States' residential infrastructure will probably inevitably entail a concentrated effort generally of the nature and ambitiousness of the RCS mandate. Substantial implementation struggles remain, and success will require the strengths of federal, state, and local governments in concert with individuals and interests in the private sector. Until the effort is at least attempted and early program success evaluated, there is little basis for the Administration's and recently defeated Congressional initiatives to preclude program implementation.

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APPENDIX I

Summary of Legislation by Section

The National Energy Conservation Policy Act (NECPA)
Public Law 95-619: Title II, Part I: Sections 210-225

(Residential Conservation Service)

SECTION	HIGHLIGHTS
210	Definitions. (Amended by the Energy Security Act, Sections 541 and 542.)
211	Evaluation of which public utilities are covered under this part.
212	Rules of the secretary for submission and approval of state and nonregulated utility residential energy conservation plans. [Amended by the Energy Security Act, Section 542(b).]
213	Requirements for residential energy conservation plans submitted by states for regulated utilities. [Amended by the Energy Security Act, Sections 542(c), 543, and 546(b) and (c).]
214	Requirements for residential energy conservation plans submitted by nonregulated utilities and by states for home-heating suppliers.
215	Specific requirements of residential energy conservation programs to be undertaken by utilities. (Amended by the Energy Security Act, Section 544.)
216	Prohibition of supply, installation, and financing of residential energy conservation measures by utilities. [Amended by the Energy Security Act, Sections 545, 546, and 547.]
217	Specific requirements of residential energy conservation program to be undertaken by home-heating suppliers.
218	Authorization for the secretary to approve, under certain conditions, temporary utility residential energy conservation programs that do not satisfy all the requirements of Sections 215 and 216.
219	Outlines federal standby authority to promulgate and enforce a residential energy conservation plan for any state or covered nonregulated utility that does not have a plan approved by a certain deadline.
220	Relationship of this part to local laws and regulations. [Amended by the Energy Security Act, Sections 542(d) and 550.]

222 Requirements for the secretary to consult the National Bureau of Standards and the Federal Trade Commission regarding rules concerning standards for energy conservation devices and materials.

223 Authorization of appropriations.

224 Requirements for the secretary to report to Congress within six months concerning the potential for energy conservation in apartment buildings.

225 Requirements for the Federal Trade Commission to report to Congress by January 1, 1982, concerning the business activities of utilities and home-heating suppliers in relation to this act.

210 This section contains the definitions of terms used in Part I, Title II, of the National Energy Conservation Policy Act (NECPA). A "residential building" is defined as a building containing at least four dwelling units that has a system for heating and/or cooling and which is not covered as a new building under the Building Energy Performance Standards of the Energy Conservation and Production Act.

A "residential energy conservation measure" includes caulking and weather stripping of doors and windows; furnace efficiency modifications (more efficient replacements, flue vent dampers, or electronic ignitions); clock thermostats; ceiling, attic, wall, or floor insulation; water heater insulation; storm doors and windows; multi-glazed windows and doors; heat absorbing or reflecting glazed window and door materials; load management devices; devices to use solar and/or wind power for residential use; and any other measure decided upon by the secretary. In addition, all "residential energy conservation measures" must have at least a three-year warranty from the manufacturer.

"Suggested measures" are those residential energy conservation measures to be recommended to consumers based upon differences in regional climate, building type, and method of construction.

As amended by the Energy Security Act, Sections 541 and 542, a residential building is redefined as of January 1, 1982, to include buildings with more than four dwelling units that do not have central heating systems. The Energy Security Act also eliminates the warranty requirement as written in NECPA and substitutes a one-year warranty for manufacturers, installers, and suppliers of residential energy conservation measures in Section 212.

211 This section establishes the limits of coverage of the act based on the magnitude of retail sales by utilities. Covered under this part for a given calendar year is any public utility if it sells 10 billion cubic feet of natural gas or 758 million kilowatt-hours of electricity during the second preceding calendar year. The secretary is required to publish a list of covered utilities before the

beginning of each calendar year, and the states are required to inform the secretary as to which covered utilities are regulated.

212 Section 212 requires the secretary to promulgate rules concerning the content and implementation of residential energy conservation plans 95 days after the enactment of NECPA that meet the requirements of Sections 213 and 214. The secretary must coordinate with other agencies, give interested persons opportunity to comment, and his rules must include:

(1) Suggested energy conservation measures for residential buildings, taking into account differences in regional climate, type of building construction, and any other relevant factor;

(2) Standards concerning the safety, effectiveness, and installation of energy conservation measures;

(3) Standards so as to avoid unfair competition resulting from requirements of NECPA, especially in relation to the development of lists of qualified suppliers, contractors, and lending institutions;

(4) Standards assuring redress for those who might claim injury; and

(5) Other necessary regulations as the secretary sees fit.

Section 212 also requires the states to submit residential energy conservation plans for regulated utilities (and nonregulated utilities, if they concur) that meet the requirements of the secretary's rules. A time frame for the implementation of the act is established, including deadlines for the promulgation of rules and submission and approval of state plans. At the Governor's discretion, home-heating suppliers may be included in state plans, though their participation is voluntary.

As amended by the Energy Security Act, Section 542, the secretary's rules shall include provisions to insure that manufacturers, suppliers, and installers of residential energy conservation measures will offer residential customers at least one-year warranties.

213 This section discusses the requirements for residential energy conservation plans submitted by states for regulated utilities. To be approved, these plans must:

(1) Meet the specific requirements regarding utility programs as outlined in Section 215;

(2) Include methods for obtaining all qualified installers, suppliers, and lending institutions on a list to be provided to residential customers;

(3) Include adequate measures to prevent unfair, deceptive, or anticompetitive acts or practices in relation to the implementation of residential energy conservation plans. Utility programs should not result in unfair discrimination among residential customers, suppliers, contractors, or lending institutions;

(4) Insure that utilities will charge fair and reasonable rates of interest to customers for the purchase and/or installation of energy conservation measures; and

(5) Insure that utilities will not inspect or modify any furnace that uses a fuel not supplied by that utility unless specifically requested to do so by a residential customer.

As amended by the Energy Security Act, Sections 542, 543, and 546, residential energy conservation plans must also inform customers of financing available under the Solar Energy and Energy Conservation Bank Act. Provisions must be included to insure that utilities, if financing programs themselves, will seek funds from local lending institutions. In addition, if energy conservation plans are to include the supply and installation of energy conservation measures by utilities, such activities must be engaged in under contract with independent suppliers and contractors as outlined in Section 216(c).

214 Section 214 concerns the specific requirements for energy conservation plans submitted by nonregulated utilities or by states for home-heating suppliers. Nonregulated utility plans must meet the requirements outlined in Section 213 for regulated utilities, in addition to which they must submit a biennial report to the secretary concerning the status of plan implementation.

States may include home-heating suppliers in their residential energy conservation plans. These plans must meet the requirements of Section 213 [except for (1) above] and those outlined in Section 217. Plans proposed for home-heating suppliers by states must take into account the resources of small home-heating suppliers.

215 This section outlines the specific requirements for regulated utility energy conservation programs proposed in state energy conservation plans. These programs must include:

(1) Methods for informing residential customers of suggested energy conservation measures and the savings likely to result from the installation of these measures;

(2) Methods of informing residential customers of no-cost techniques they can use to conserve energy, such as changing energy use patterns and household activities, and the savings likely to result from these techniques;

(3) Plans to offer to each residential customer the opportunity for an audit to estimate the cost of purchasing and installing suggested measures in their home and the savings in energy costs likely to result from such installation (audit results must be kept on file for at least five years for subsequent owner inspection); and

(4) Plans to offer to assume the role of project manager by arranging for installation and financing of energy conservation measures and to provide each residential customer with the state lists of qualified suppliers, installers, and lending institutions.

New customers must be informed of the residential energy conservation program and offered services within 60 days of starting regular utility service.

In addition, this section outlines requirements for utility accounting and repayment of costs associated with the implementation of the residential energy conservation programs. Costs incurred to supply information to residential customers are to be rate-based. General administrative costs and costs associated with audits and project management are to be either rate-based or charged directly to the residential customer for whom the services are provided. The state regulatory authority (or, as the case may be, the nonregulated utility) may choose which method of repayment will be utilized. Any costs incurred by a utility in labor or materials for the purchase or installation of energy conservation measures shall be recovered from the residential customer for whom the services are provided.

Billing to customers for these services must be stated separately from billing for regular utility service, and utilities may not terminate regular service for lack of payment by customers for services provided under a residential energy conservation program. At the request of participating lending institutions, utilities will collect loan payments as part of a customer's regular utility bill. Utilities providing this service can recover associated costs from the lender.

When utilities make loans to customers (as allowed under Section 216), the repayment period will not be less than three years unless a customer specifically requests a shorter time period.

As amended by the Energy Security Act, Section 544, general administrative costs and costs of project management are still to be recovered in the manner determined by the state regulatory authority or nonregulated utility. However, if these costs are not rate-based, residential customers can be directly charged $15 or the actual cost of services provided, whichever is less.

216 Under this section public utilities are prohibited from supplying, installing, or financing any residential energy conservation measure unless specifically exempted. Utilities may install furnace efficiency modifications, clock thermostats, and load management

devices. They are permitted to finance these improvements and may also extend loans to residential customers for other purposes provided these loans do not exceed $300.

Also exempt are utility supply, installation, or financing activities already in preparation or such activities when they were permitted or required by law or regulation before the enactment of NECPA.

The secretary can waive the prohibitions of this section if utility activities are not resulting in unfair competition, deceptive business practices, or unfair interest rates. If waivers are granted, however, utilities must bring their energy conservation activities in line with the requirements of Section 215 in a reasonable period of time, unless they are carrying out a program required of them by a law or regulation that was in effect before the enactment of NECPA.

Allowable utility financing must be offered at reasonable terms and rates. Installation, supply, and financing activities must not have adverse effects upon competition or be carried out in a deceptive or unfair manner. The secretary may prohibit all such activities if, upon consultation with the Federal Trade Commission, it is determined that these conditions are not being met.

Violators of the prohibitions in this section will be subject to a civil penalty of $25,000 per violation.

As amended by the Energy Security Act, Sections 545, 546, and 547, the prohibition of supply and installation does not apply to measures supplied or installed by a utility through contract with independent suppliers or contractors who are on the published list referred to in Section 213. Utilities must select contractors and suppliers by methods that minimize, to the maximum extent possible, the cost to the residential customers and which do not result in unfair competition with the individual or firm receiving an unreasonably large share of available contracts.

In addition, this section as amended no longer prohibits utilities from making loans to customers for residential energy conservation measures. Utility financing, however, must be available for work done by any qualified contractor or for the purchase of conservation measures if the residential customer is to install them himself. Loans from utilities will not classify as taxable income for residential customers. If utilities are going to finance programs themselves, they must seek funds from local lending institutions to the maximum extent possible (from Section 213, as amended).

The Energy Security Act also requires the secretary, in conjunction with the Federal Trade Commission, to monitor utility financing, installation, and supply activities and report to Congress.

217 Section 217 outlines the specific requirements for home-heating supplier energy conservation programs. While these requirements are

basically the same as utility requirements, participation in the program is voluntary and the relatively small resources of home-heating suppliers can be taken into account to exempt them from any requirements as the secretary or a given state see fit.

Home-heating suppliers are directly authorized to make loans to residential customers for the purchase and installation of energy conservation measures under the provisions of NECPA. Regular fuel deliveries cannot be terminated due to lack of payment on these loans, and residential customers must be offered at least a three year payback period.

218 Under the provisions of Section 218, the secretary can authorize a temporary utility energy conservation program if the state or public utility making such an application shows that:

(1) Fair and reasonable interest rates will be charged on loans;

(2) Anticompetitive acts and deceptive business practices will be prevented; and

(3) It is likely that as many energy conservation measures will be installed under this program as would be under a program meeting the requirements of Section 215.

Authorization by the secretary for such programs will not exceed three years.

219 If a state or a covered nonregulated utility does not have an approved energy conservation plan by a specified deadline or an approved plan is not being adequately implemented the secretary can promulgate a plan which meets the requirements of the relevant sections and order its implementation. Violators of such orders are subject to civil penalty, and the process of assessing this penalty is detailed in this section.

220 Under this section no local laws or regulations shall be superseded, unless such laws or regulations prohibit public utilities from taking actions associated with conservation programs or permit them to take actions prohibited by this part of NECPA.

As amended by the Energy Security Act, Sections 542 and 543, activities of public utilities under energy conservation programs shall be construed as consistent with actions allowed under the Public Utility Holding Company Act of 1935.

221 This section authorizes the secretary to promulgate whatever rules are necessary to carry out this part of NECPA.

222 Section 222 requires the secretary to consult the National Bureau of Standards in establishing rules regarding the safety, energy efficiency, efficacy, and other attributes of energy conservation materials, products, or devices. The secretary is also to consult the Federal Trade Commission to insure that these standards do not serve to deceive consumers.

223 Under this section appropriations of five million dollars each year are authorized for fiscal years 1979, 1980, and 1981.

224 Section 224 requires the secretary to prepare a report on the potential for energy conservation in apartment buildings. This report is to be delivered six months after the enactment of NECPA and must consider:

(1) Energy control measures that could result in conservation;

(2) The potential for energy conservation by applying utility programs to apartment buildings;

(3) The need for federal monetary assistance to achieve conservation; and

(4) Recommended legislation.

225 This section requires the Federal Trade Commission, by January 1, 1982, to issue a report on the activities of utilities and home-heating suppliers with regards to:

(1) Making and/or arranging for loans to residential customers;

(2) Making and/or arranging for the installation of energy conservation measures, considering the effects of such activities on competition among contractors, suppliers, and lenders within a given service area;

(3) The availability of supplies of energy conservation measures and their price; and

(4) The number of installations which have occurred and which are likely to occur in the future for each energy conservation measure included in residential conservation programs.

APPENDIX 2

DOE RCS REGULATION SYNOPSIS

The DOE regulations implementing the RCS legislation are extremely detailed, with some 90 sections contained in 8 subparts and 3 appendices. A careful analysis of each of these sections is beyond the scope of this paper. In this appendix we provide a brief summary of each of the eight subparts and discuss the more controversial sections, including those that will be affected by the subsequent passage of the Energy Security Act (ESA). We begin with a brief history of the promulgation of the Final Rule.

DOE gave advanced notice on January 9, 1979, that they would issue proposed rules for the implementation of the RCS program. Proposed rules were issued on March 19, 1979; the draft Environmental Impact Statement on July 16, 1979; and the Final Rule on November 7, 1979.

On June 30, 1980, the Energy Security Act (ESA) was enacted. Title V, Subtitle B, of the ESA amends many significant provisions of the RCS portion of the National Energy Conservation Policy Act (NECPA). In order that the plan review process not grind to a halt, DOE issued on August 11, 1980, their "interpretation" of the effect of the ESA on the plan review process. On October 8, 1980, DOE issued proposed rules implementing the ESA amendments, and final rules were to follow shortly. In order to speed up the review process, DOE will individually advise states and utilities who have submitted RCS plans on what changes are required to bring their plans into compliance with the ESA amendments.

Section III

Subpart A, Sections 456.101 - 456.106 (General Provisions and Definitions)

Subpart A of the Final Rule deals with general provisions and definitions. This subpart discusses petitions concerning conflicts of laws, defines covered utilities, and explains utility and home-heating oil supplier liability. The definitions included in this section are, among others: measures warranty, eligible customer, program announcement, energy audit, and energy conservation practices.

Subpart B, Sections 456.201 - 456.208 (Preparation, Submission, and Approval of State Plans and Temporary Programs)

This subpart identifies the responsibilities of the states and the Tennessee Valley Authority (TVA) in preparation and submission of state RCS plans. These responsibilities include choosing a lead agency, listing which nonregulated utilities and home-heating suppliers, if any, will be subject to the state plan, and coordinating the plan between the lead agency and state regulatory agency, if they are not the same.

Also included are requirements for public comment and hearings.

This subpart also details the procedures for approval of the state plan by the assistant secretary of DOE. Included in these procedures is the process by which a governor or lead agency may submit proposed amendments to an approved state plan.

Lastly, this subpart explains the procedures for submission and the criteria for approval of temporary programs, which exempt one or more utilities from compliance with certain provisions of RCS.

Comment: Section 456.202

Section 456.202 (b) of the proposed rule reflected DOE's interpretation that if the lead agency includes any nonregulated utilities in the state plan, then it must include all of them. In light of the comments DOE received about this interpretation of federal intent, DOE has reinterpreted this provision of NECPA to include selected nonregulated utilities. In addition, DOE clarified NECPA's position on home-heating suppliers, stating that home-heating suppliers are not required to participate but do so on a voluntary basis.

Comment: Section 456.208

A number of commenters wanted DOE to liberally approve temporary programs so that there would be more time to bring ongoing programs into compliance with RCS. DOE was not particularly sympathetic to this argument but reminded states that requests for temporary programs can be made for specific elements of a plan or for entire programs.

Subpart C, Sections 436.301 - 456.319 (Content of State Plans)

The success of RCS will be measured by the success with which states and utilities can submit state plans which they can realistically implement and enforce and which can satisfactorily fulfill the intention of Congress. Because of the extreme importance these sections had for states and utilities, this subpart was the longest and most comprehensive and contained the most controversial sections of the rules and regulations.

The state plan is required to identify all home-heating oil suppliers and nonregulated utilities which are subject to the state plan. The state is also required to identify any covered utilities which request exemptions under the "temporary programs" clause. The plan is to include adequate procedures for investigating and enforcing compliance with the state plan. The plan shall require that each covered utility which supplies, installs, or finances an energy conservation or renewable resources measure be placed on a master list, along with a specific description of each utility's activities in these areas. The state plan must describe the circumstances under which customers are entitled to such benefits as a warranty, supply or installation of a measure postinstallation inspection, and redress procedures.

The state plan must require each covered utility and each participating home-heating oil supplier to distribute a program announcement, to perform an energy audit, and to arrange installation and financing of approved conservation measures for any eligible customer. The regulations in this subpart also describe how state plans are to make provisions for utilities to recover the costs of these services. The regulations explain how state plans should deal with customer billing, repayment of loans, and termination of service. State plans must include mandatory postinstallation inspections, qualification procedures for installers and inspectors, and complaint processing procedures. The state plan must consider the limited resources of home-heating oil suppliers and provide for their voluntary withdrawl from the program. The subpart ends with an explanation of how a state may add its own energy conservation or renewable resources measures to those approved nationwide for the RCS program.

Comment: Section 456.303 (Investigation and Enforcement)

Several state agencies felt they did not have adequate authority to enforce state plan provisions and could not promise that legislation providing such authority would be passed. The Final Rule provides flexibility for each state to design a means of enforcing the state plan, including voluntary compliance; however, DOE insists that it will not approve any plan unless it contains "adequate state enforcement procedures."

Nonregulated utilities objected to the establishment of new state authority over nonregulated utility operations, but DOE feels they have made it clear that Congress did not intend states to regulate the rates of nonregulated utilities by reason of their inclusion in a state RCS plan.

Comment: Section 456.304 (Exemptions and Waivers for Utility Supply, Installation, and Financing)

Regarding utility financing, some concern was expressed that requiring "fair" interest rates could prohibit zero interest utility loan programs. Similarly, requirements on prices might prohibit "free" (fully subsidized) utility installation of some low cost measures. DOE replied that the term "reasonable prices and rates of interest" should be interpreted as a "ceiling" rather than a "floor." Some commenters expressed concern that enforcing "fair" prices might be in conflict with federal antitrust laws and requested guidance on judging "anticompetitive" activity. DOE is currently working on clarifying this definition.

Comment: Section 456.306 (Program Announcement)

The major disputes that arose from DOE's interpretation of this requirement were (1) the expression of energy savings estimates in terms of dollars; (2) the scheduling of the distribution of the announcement; and (3) the content of the announcement.

NECPA requires the announcement to include "the savings in energy costs that are likely to result from installation of the suggested measures in a typical residential building" [NECPA Section 215 (a)(2)]. Initially, DOE interpreted this to mean savings expressed in dollars, but the arguments against such an interpretation were convincing, and the Final Rule allows savings to be expressed in dollars, ranges of dollars, or as percentage reductions in energy bills for a specified period of time.

A criticism of this announcement was that if it contained all the material DOE required it would be an "information overkill" and would not be read by most consumers. Several utilities thought a phased approach to providing the information would be more effective than sending it all out within six months. DOE agreed that the six-month period might be too short but felt that the statute required this information to be diseminated within six months.

However, at least one exception has already been made to this strict interpretation. The State of Wisconsin submitted a plan for an alternative Program Announcement. Because Wisconsin utilities have extensive experience in providing audits and conservation services and wish to avoid a large backlog, DOE has approved a plan whereby they can extend their distribution period from six months to one year. In return they must send at least one announcement per customer per year.

Comment: Section 456.307 (Requirements for Program Audits)

The Final Rule allows states considerable discretion in adding measures with DOE approval to the minimum list of program measures which must be addressed in an RCS audit. The states also have the right to lower or raise insulation levels from those required in the rule (Appendix 1).

DOE has somewhat clarified its position regarding possible duplication of audits by gas and electricity utilities serving the same customer. According to NECPA Sections 213 (a) and 215 (b), each covered utility must offer an audit to its customer. DOE has not stated that subcontracting or other inter-utility agreements for auditing services are permissible, but it is still left largely to states (or individual utilities) to resolve most jurisdictional questions.

DOE has permitted utilities to provide their customers with "Class B" (do-it-yourself) audits, but not as a precondition to receiving an on-site audit by the utility.

Utilities felt that DOE was being unreasonable in requiring the delivery of audit results in person, because this would greatly increase the cost. DOE disagreed with this argument but will consider proposals by states which would be equally or more effective in motivating customers to take action. A number of states and utilities suggested that DOE allow audits to be staged on the basis of neighborhood levels of customer energy use, or otherwise scheduled to even out fluctuating demand. This approach has been adopted by DOE in its Final Rule: the offer of a program audit in the Program Announcement can be prioritized on a geographic basis or the amount of energy used (higher users first, users who spend a larger fraction of household income on utility bills), provided that the state plan includes methods for eventually contracting all customers. At a minimum, all customers must receive an offer for a program audit at least once every two years.

Because of the substantial variation among solar water heating and space heating systems, DOE wants auditors to inform customers about the specific system on which their savings estimates are based. Many commenters expressed concern over the accuracy of available energy audit procedures and requested financial and technical aid from DOE. In response, DOE has put together a model audit, which is now awaiting final approval. According to the RCS Final Rule, each state must either validate the RCS audit procedures it uses or submit the procedures to DOE for validation.

Lastly, the EPA has expressed some concern about reductions in air infiltration that would be caused by certain energy conservation measures. As a consequence, DOE will soon issue an amendment to Section 456.307, requiring auditors to to inform their customers about proper ventilation.

Comment: Section 456.308 (Arranging Installation)

DOE has made clear that the mere distribution of lists of contractors, as required by NECPA, cannot be considered an "arranging" service. The utilities must provide a list of contractors who have agreed to perform the installation at the auditor's estimated cost, or else the utilities must assist the customer in obtaining installation bids.

Comment: Section 456.310 (Accounting and Payment of Costs)

Many commenters felt that allowing utilities to expense the full cost of audits would give them unfair advantages over auditors in the private sector. DOE has left the recovery of these costs to the discretion of the state regulatory authority or the governing board of each nonregulated utility. However, according to the ESA amendment to this section, the amount recoverable from the residential customer for all utility information, auditing, and "arranging" services shall not exceed a total of $15 per dwelling unit. The ESA also removed the NECPA requirement that restricted the practice of expensing all RCS costs (i.e., providing services at no direct charge to participating customers).

Also removed by the ESA was Section 215 (f) of NECPA, which among other things allowed lenders to require lump-sum payments of outstanding principle and interest if a customer defaulted on conservation loan payments. Finally, the ESA removed the prohibition against loan prepayment penalties.

Comment: Section 456.312 (List of Suppliers, Contractors, and Lenders)

The most common objections to the RCS postinstallation inspections were that they are not required by statute, are contrary to its intent, and are too costly. Although recognizing that the postinstallation inspection requirement is a potentially costly provision of the Final Rule, DOE believes such inspections are necessary to ensure that standards and other listing requirements are met. However, to reduce the coverage and costs of postinstallation inspections, DOE has allowed a program of random inspections for all measures except vent dampers, electric furnance ignition systems, and wind energy systems, which require 100 percent inspections for safety reasons.

Comment: Section 456.314 (Qualification Procedures for Auditors, Inspectors, and Installers)

The auditor qualifications required in the Final Rule are extensive, and many people questioned the need for auditors to be knowledgeable in such diverse areas. There are certainly some geographic areas where auditors will never need to consider certain measures. DOE agreed that some measures may be requested infrequently, especially in certain locations, and also might require specialized equipment and skill that would be best handled by specialists. The Final Rule reflects this view. Nevertheless, a utility receiving a request for a comprehensive audit must have access to auditors who can cover all possible conservation or renewable measures, even if this means subcontracting for specialized skills.

Comment: Section 456.315 (Complaints Processing Procedures)

The Final Rule has been modified to accommodate most, if not all, existing state procedures to provide redress for consumer complaints under the RCS program. To provide states with additional flexibility, DOE will approve any procedure which meets the criteria of Section 456.315 (b). In addition, DOE will approve any existing procedures which the state demonstrates can meet most of these criteria and would be costly or difficult to amend.

Subpart D, Sections 456.401 - 456.408 (Nonregulated Utility Plans)

This subpart parallels closely the statutory responsibility of covered nonregulated utilities as explained in NECPA Section 214.

Comment:

The only major argument involving this subpart was that nonregulated utilities, according to many commenters, should be required to meet the same provisions as regulated utilities of comparable size. DOE felt that if a state chose not to include a nonregulated utility in its plan, the utility should not be forced into compliance with the state plan but would of course have to comply separately with federal laws and regulations.

Subpart E, Sections 456.501 - 456.508 (Supply, Instrumentation, and Financing by Utilities)

This subpart is drawn directly from the ESA amendments to NECPA Section 216. In addition, this subpart also sets forth certain requirements for utility financing programs.

Comment:

Section 216 (c) (2) (?) of the ESA amended the more stringent NECPA requirements on utilities and installers to prevent "anticompetitive" activity. Because of DOE's concern that uncertainty about the definition of "anticompetitive" might hinder utility participation, they are currently clarifying this section.

Subpart F, Sections 456.601 - 456.606 (Federal Standby Authority and Enforcement Provisions)

This subpart specifies the procedures to be followed to ensure that eligible customers receive the services of the RCS program in the event that a state or a nonregulated utility does not submit an acceptable plan or fails to adequately implement an approved plan. This subpart explains the federal enforcement provisions and the maximum penalty for any violations.

Comment:

There was very little controversy surrounding DOE's promulgation of this subpart, primarily because these provisions are drawn directly from NECPA and are essentially identical to it. DOE reiterates that where standby authority is invoked due to inadequate implementation of an approved plan, DOE is under no obligation to follow the state plan. To date, four states have not submitted plans. The states of Montana, Utah, and North Dakota did not feel they had adequate resources to prepare and enforce a plan. The State of Virgina did not feel that the RCS program was of any practical benefit. Utilities in these four states, as well as in any other state whose plan is not approved or not implemented adequately, will be subject to the Federal RCS plan. The federal plan was scheduled for completion by January 1981.

Subpart G, Section 456.701 - 456.706 (Renewable Resource Installation and Materials Standards)

This subpart contains both the installation and materials standards for renewable resource measures. Only for solar domestic water heating and active solar space heating systems have the material and installation standards been set. Standards for the remaining renewable resource measures addressed in this section will be proposed shortly.

Subpart H, Sections 456.801 - 456.815 (Energy Conservation Material Standards)

This subpart identifies and describes minimum standards for product safety and effectiveness of certain energy conservation measures used in the RCS program. The subpart begins with general requirements, such as prohibitions against insulation materials containing asbestos, and continues with detailed definitions for the aronyms sprinkled liberally throughout the discussion of standards. The rest of the subpart describes those standards in detail.

Comment:

The standards included in subpart H are not intended for the lay reader but are legal requirements. However, the required label "conforms to DOE standard" should help the consumer determine if a specific product meets DOE's minimum requirements for safety and effectiveness.

The bulk of the arguments on this subpart dealt with the legal definitions and will not be repeated here. For those interested in such comments pages 64638 - 64641 of CFR (November 7, 1979) should provide some satisfaction.

An interesting comment that was made about this section concerned the right of states to promulgate standards which differ from the DOE standards (either more or less strict). NECPA does not give DOE clear authority to prohibit such action by states.

Subpart I, Sections 456.901 - 456.914 (Energy Conservation Installation Standards)

Subpart I is the companion to subpart H and contains the installation standards for the safe and effective installation of energy conservation measures under the RCS program. It follows the same pattern as subpart H, listing first definitions and general requirements and then listing pre- and post-installation standards. All of the standards included in subpart I are applicable only to existing residential buildings. Procedures included in the standards are general in nature. Specific insulation techniques, description of terminology, and fundamentals of residential construction and applicable local codes and regulations are not included.

DOE decided against giving state and local building code jurisdictions the major responsibility for defining installation standards, because most of these jurisdictions have little experience with the installation of RCS program measures. Where state and local codes specifically address these measures, they may apply.

In addition, DOE indicated in this subpart a willingness to provide exemptions for those products which meet RCS performance standards but cannot be safely and effectively installed following DOE standards.

APPENDICES

Appendix A to subpart I provide equations and tables for determining the steady-state efficiency of a furnace. Appendix 1 to part 456 details the climate zones for program measures and the categories of residential buildings.

Senator **Domenici**. Thank you very much.

I have to apologize to the panel. I am supposed to be in the leader's office in about 2 minutes, so I am going to have to leave. Senator Ford will continue for 15 or 20 minutes, he indicated.

I want to thank you all for appearing, and you can be assured that your testimony and your constructive ideas will be considered. I hope you understand that this happens to be a day, for some reason, that a number of Senators are not in town, and we would have hoped that more would have been here, but they are not. However, we are going to seriously consider not only what you all have said, but the other witnesses also.

I would just leave you all with this one thought. I know you have given good reason for not consolidating as prescrived in the bill, and, obviously, you introduced a bill to have it worked on by a committee, but I am very concerned—if we don't block something, and do it in a significant manner, the administration, in my opinion, is going to recommend lower and lower levels for appropriations in the pieces that are left there. I think it is imperative that we get some support from them for a level of funding in this area. I seek to do that.

I don't want to go through the exercise of consolidation only to have no recommendation there either—not that they are the last word—but I think you read that the next 3 years are going to be difficult in terms of where we spend money. I think there is some merit to a consolidation that meets some of the objectives; that carries with it a commitment to fund at that level from the administration, from Mr. Stockman, and those that advise the President. I think you can see the trend line on the pieces is going down, and I think Senator Ford will agree that on the appropriations process there is not a tendency to have them going up. I mean the tendency to keep them stable, or coming down, is with us for a few years, and the Administration recommending at the lower level in pieces, we might in a practical sense be looking at some semblance of blockage that we could get a commitment from them on.

That is just a thought that I wanted to throw out. I don't know whether we could ever get that kind of a commitment, but I hope we could try to get a commitment that they would support a level of funding for it also.

Senator **Ford** [presiding.] I have some questions for Ms. Praul, but I am going to mail them to you.

Ms. **Praul**. If you have questions, I would rather answer them in person, actually.

Senator **Ford**. I will send you the letter and we can correspond.

[The letter follows:]

U.S. Senate,
Committee on Energy and Natural Resources,
Washington, D.C., October 22, 1981.

Ms. Cynthia Praul,
Senior Policy Analyst,
California Energy Commission, Sacramento, Calif.

Dear Ms. Praul: Thank you for your appearance before the Senate Committee on Energy and Natural Resources, on October 16, 1981.

In connection with your testimony concerning S. 1544, State and Local Energy Block Grant Act of 1981, would you please answer the enclosed questions. Your answers will be submitted for the record. A response to these questions would be appreciated by Monday, November 2.

Thank you very much for your cooperation.
Sincerely yours,

JAMES A. MCCLURE,
Chairman.

QUESTIONS FOR CYNTHIA PRAUL

1. What is your position with the California State Energy Commission?
2. What do you expect would happen if the RCS program is repealed? Would similar programs be conducted by the utilities anyway?
3. Is there an infra-structure of energy auditors out there in the private market who would step in to do the audits?
4. You have spent a considerable amount of time studying how the RCS program operates, haven't you? Can we improve the existing RCS program? How, what would you recommend?

[Responses not received.]

Senator FORD. Mr. Myers, will you proceed, please?

STATEMENT OF DONALD L. MYERS, TREASURER, AMERICAN UNIVERSITY, ON BEHALF OF THE AMERICAN COUNCIL ON EDUCATION

Mr. MYERS. Mr. Chairman and members of the committee, my name is Donald Myers and I am the treasurer of American University. It is my pleasure to testify before the Senate Energy and Natural Resources Committee today on behalf of the American Council on Education which represents over 1,600 colleges and universities, on S. 1544, the State and Local Energy Block Grant Act of 1981.

Our particular concern is continuation of the schools and hospitals program, which Congress authorized under title III of the National Energy Conservation Policy Act (NECPA). The schools and hospitals program provides 50 percent matching grants for technical assistance and capital modification projects designed to reduce energy consumption. The schools and hospitals program has helped colleges and universities reduce energy consumption; thus, we would prefer continuation of this program as it currently exists, and not incorporation in an energy block grant to States.

Sharply rising energy costs pose a serious threat to our Nation's postsecondary education system by consuming institutional funds needed to maintain quality programs and instruction. Despite reduced consumption on campus, energy costs have risen dramatically at most colleges and universities. On the average, the cost of energy per gross square foot in higher education institutions has quadrupled in less than a decade. Energy expenses consume as much as 10 percent of an institution's current operating budget today compared to 2 percent 8 years ago. These dramatic increases represent a reduction in funds budgeted for academic programs and instruction, reduction or deferral of campus maintenance, or increases in the cost of education for students.

Today's soaring energy costs, coupled with uncertain energy supplies, dictate implementation of both "quick fix" conservation measures and major capital modification projects. The schools and hospitals program has provided important assistance in alleviating the severe financial drain by helping colleges and universities reduce energy consumption and costs.

Indeed, President Reagan stated in his program for economic recovery that "these (schools and hospitals program) grants have proved their value in financing cost-effective conservation improvements in public facilities not eligible for tax incentives."

There are approximately 426,000 buildings nationwide that qualify for assistance from the schools and hospitals program as it currently exists. This program has helped finance preliminary energy audits for more than 116,000 of these buildings, and more detailed energy audits for nearly 58,000 buildings. It is estimated that these audits can lead to reduced energy consumption of 15 to 30 percent. The Department of Energy has also awarded nearly $378 million in matching grants to schools and hospitals through this program for technical assistance and capital modification projects to reduce energy consumption. Many of these institutions could not have undertaken conservation measures without NECPA assistance.

Schools and hospitals need the assistance provided by this program. The Department of Energy received approximately 19,000 applications for grants from the schools and hospitals program in the first two program cycles, but could only fund fewer than 7,400 applicants. DOE estimates that nearly 8,000–10,000 applications were received for the third program cycle, and only 3,664 received assistance. Institutions of higher education, in particular, have demonstrated their need for program assistance. The following chart highlights the amount of funds allocated to colleges and universities for the first two program cycles. Unfortunately, these data are not yet available for the third program cycle.

The Department of Energy has awarded nearly $370 million in matching grants to schools and hospitals to reduce consumption. Many of these institutions could not have undertaken conservation measures without the assistance of these matching grants. Schools and hospitals need the assistance provided by this program.

I would like to summarize our concerns about S. 1544, which is the subject of today's hearings.

First, we oppose the repeal of the conservation programs consolidated in this energy block grant proposal. We ask that the committee retain the programs as distinct entities.

Second, S. 1544 does not require the State energy plan or Program Operation Report. There is no assurance, therefore, that colleges and universities which have demonstrated need will receive an equitable share of State energy funds.

Our third concern relates to the disqualification of certain institutions. Approximately 25 States have constitutional prohibitions against the use of State funds for private or sectarian institutions. Thus, it is essential to provide some method to rectify this potential disparity among institutions in a State.

Last, S. 1544 provides $2 million for each fiscal year, 1981, 1982, and 1984. In our judgment, this authorization level is inadequate to allow for effective and fair implementation of the numerous energy conservation programs that could be funded through this energy block grant.

We appreciate this opportunity to comment on S. 1544, and hope that you will consider the unique financial and programmatic constraints of higher education institutions in your deliberation. Careful consideration must be given to meeting the needs of colleges and universities. We would be willing to work with you and members of the staff to refine this proposal.

Thank you.

[The prepared statement of Mr. Myers follows:]

STATEMENT ON S. 1544
THE STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

HEARING BEFORE THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

PRESENTED ON BEHALF OF
THE AMERICAN COUNCIL ON EDUCATION
by
Mr. Donald L. Myers
Treasurer
American University

October 16, 1981

Mr. Chairman and Members of the Committee:

My name is Donald Myers and I am the Treasurer of American University. It is my pleasure to testify before the Senate Energy and Natural Resources Committee today on behalf of the American Council on Education which represents over 1,600 colleges and univerties on S. 1544, the State and Local Energy Block Grant Act of 1981. Our particular concern is continuation of the Schools and Hospitals Program, which Congress authorized under Title III of the National Energy Conservation Policy Act (NECPA). The Schools and Hospitals Program provides fifty percent matching grants for technical assistance and capital modification projects designed to reduce energy consumption. The Schools and Hospitals Program has helped colleges and universities reduce energy consumption; thus, we would prefer continuation of this program as it currently exists, and not incorporation in an energy block grant to states.

Sharply rising energy costs pose a serious threat to our nation's postsecondary education system by consuming institutional funds needed to maintain quality programs and instruction. Despite reduced comsumption on campus, energy costs have risen dramatically at most colleges and universities. On the average, the cost of energy per gross square foot in higher education institutions has quadrupled in less than a decade. Energy expenses consume as much as ten percent of an institution's current operating budget today compared to two percent eight years ago. These dramatic increases represent a reduction in funds budgeted for academic programs and instruction, reduction or deferral of campus maintenance, or increases in the cost of education for students.

Today's soaring energy costs, coupled with uncertain energy supplies, dictate implementation of both "quick-fix" conservation measures and major capital modification projects. The Schools and Hospitals Program has provided important assistance in alleviating the severe financial drain by helping colleges and universities reduce energy consumption and costs.

Indeed, President Reagan stated in his Program for Economic Recovery that "these (schools and hospitals program) grants have proved their value in financing cost-effective conservation improvements in public facilities not eligible for tax incentives."

There are approximately 426,000 buildings nation-wide that qualify for assistance from the Schools and Hospitals Program as it currently exists. This program has helped finance preliminary energy audits for more than 116,000 of these buildings, and more detailed energy audits for nearly 58,000 buildings. It is estimated that these audits can lead to reduced energy consumption of 15 to 30 percent. The Department of Energy (DOE) has also awarded nearly $378 million in matching grants to schools and hospitals through this program for technical assistance and capital modification projects to reduce energy consumption. Many of these institutions could not have undertaken conservation measures without NECPA assistance.

Schools and hospitals need the assistance provided by this program. The Department of Energy received approximately 19,000 applications for grants from the Schools and Hospitals program in the first two program cycles, but could only fund fewer than 7,400 applicants. DOE estimates that nearly 8,000-10,000 applications were received for the third program cycle, and only 3,664 received assistance. Institutions of higher education, in particular, have demonstrated their need for program assistance. The following chart highlights the amount of funds allocated to colleges and universities for the first two program cycles. Unfortunately, these data are not yet available for the third program cycle.

	Total Funds for Schools	Total Funds for Higher Education
Cycle I	75.8 Million	31.5 Million
Cycle II	68.1 Million	26.6 Million

The 95th Congress delineated the nation's commitment to a sound energy policy to insure the vitality of our institutions. Energy conservation is a cornerstone of this commitment. Congress authorized several catagorical programs to aid those sectors with unique energy needs. The higher education community wishes to reaffirm its belief that the most effective means of providing assistance for energy conservation is through a separate grant program.

However, if this committee believes that the appropriate means of providing incentives for energy conservation is through block grants to the states, we would like to present our concerns about S. 1544, which is the subject of todays hearings.

Our concerns with S. 1544 are as follows:

PROGRAM REPEAL:

We oppose the repeal of the conservation programs consolidated in this energy block grant proposal. We ask that the committee retain these programs as distinct entities.

STATE PLAN:

S. 1544 does not require a state energy plan or program operation reports. There is no assurance, therefore, that colleges and universities, which have demonstrated need, will receive an equitable share of state energy funds. Moreover, without a state plan, there is no indication of the state's priorities or level of commitment. We believe that the imposition of a state plan may be one way to ensure that colleges and universities receive an equitable share of the funds disbursed through the energy block grant program.

INSTITUTIONS DISQUALIFIED:

Approximately 25 states have constitutional prohibitions against the use of state funds for private or sectarian institutions. Thus, it is essential to provide some method to rectify this potential disparity among institutions in a state such as providing an alternative delivery system directly to an institution.

AUTHORIZATION LEVEL:

S. 1544 provides $200 million for each fiscal year 1982, 1983, and 1984. In our judgement, this authorization level is inadequate to allow for effective and fair implementation of the numerous energy conservation programs that could be funded through this energy block grant. It is also significantly less than the authorization levels established in the Omnibus Budget Reconciliation Act of 1981: $365 million for fiscal year 1982; $387 million in fiscal year 1983; and $399 million in fiscal year 1984.

MATCHING FUNDS:

As you know, S. 1544 requires that "Any state receiving financial assistance under this Act shall provide matching funds from non-Federal sources in an amount equal to: (1) 30 percent of the amount awarded, for fiscal year 1982; (2) 50 percent of the amount awarded, for fiscal year 1983; and (3) 50 percent of the amount awarded for fiscal year 1984." Under the current Schools and Hospitals program, institutions already match equally the federal contribution. While lesser matching affords some relief, it would also serve to limit the number of recipients and thus reduce the leveraging effect of the assistance.

We appreciate this opportunity to comment on S. 1544 and hope that you will consider the unique financial and programmatic constraints of higher education institutions in your deliberations. If this committee moves to create an energy block grant for states, careful consideration must be given to meeting the needs of colleges and universities.

We would be willing to work with you and members of your staff to refine this proposal.

Senator **Ford**. Thank you very much, Mr. Myers.

Mr. Maggiore.

STATEMENT OF ANTHONY J. MAGGIORE, JR., ASSOCIATE DIRECTOR, COMMUNITY RELATIONS-SOCIAL DEVELOPMENT COMMISSION IN MILWAUKEE COUNTY, ON BEHALF OF THE NATIONAL COMMUNITY ACTION AGENCY EXECUTIVE DIRECTORS ASSOCIATION AND THE NATIONAL COMMUNITY ACTION FOUNDATION

Mr. **Maggiore**. Mr. Chairman, my name is Anthony J. Maggiore, Jr. I am representing the National Community Action Agency Executive Directors Association and the National Community Action Foundation. I am the associate director for the Community Relations-Social Development Commission, a public intergovernmental social planning and community action agency in Milwaukee County. Until recently I was also a member of the Fuel Oil Marketing Advisory Committee of the U.S. Department of Energy, and served as chairperson of a committee which published reports on low income energy assistance programs in 1979 and 1980.

I want to thank you for the opportunity to testify before your committee on State and Local Energy Block Grant Act of 1981, S. 1544.

The major issues confronting all energy consumers today are partially the result of a government policy which promotes increased costs for energy in order to promote needed conservation and increased domestic production.

In my opinion, another policy is essential, a policy which relieves low income and elderly of the immediate and intolerable burdens imposed by this policy of increased costs. Without such a policy, the health and safety, even the lives, of low income persons, and especially the elderly, will be jeopardized.

I would like to simply summarize some of the concerns we have about S. 1544.

One, the disadvantages of the proposed legislation are financial energy problems and priorities are not addressed on a national scale, but on a state by State basis. Thus, in some States such problems and priorities will be addressed; in others, they may not be dealt with at all and, if so, minimally. Thus, Federal energy policies would not be directly related to actions designed to deal with the impact of such policies on a State and local level.

If a State energy block grant were to be passed by Congress and implemented, the future integrity of future energy policies would be jeopardized. Such policies are only effective to the extent that the Federal Government can assure effective implementation of such policies on the State and local level.

Two, State energy block grants would not assure the continuation of the current low income weatherization program. Energy problems potentially grouped into the block grant program, such as State planning, schools and hospitals, commercial building conservation, energy extensions, low income weatherization programs, obviously supply, and possibly venture capital there, as well as the energy assistance program, all of those groups compete for funds under the block grant program. Since the other competing interests have considerably more power than low income people, the poor, as always, will lose in such a competition. One can assume a disproportionately reduced level of funding and effort.

Three, the proposed State energy block grant does not include income eligibility guidelines, performance and service standards, reporting and accountability mechanisms, and limitation on administrative costs. There would be no value lines of any sort and scandals through the country. Low income people aren't the only ones who steal from the Federal Government. The States, counties, businesses, and industry, they all steal, and I suspect the stealing will shift from an individual basis to a public basis.

Senator FORD. You mean we ought to lock the car and take the keys with us?

Mr. MAGGIORE. Or decide to put in guidelines for monitoring systems that will assure the funds are spent by whoever in a responsible way. To take away guidelines and then dismantle monitoring systems on the part of the Federal Government, is quite frankly stupid, unless we want the money to be misused. Apparently that stage is being set, so that Governors in localities have carte blanche as to what they do with the money. There isn't a mechanism other than a generalized report to Congress to report how the money is being spent. That is irresponsible. Since I pay taxes, I feel twice as bad about it.

Senator FORD. Welcome to the crowd.

Mr. MAGGIORE. Four, management systems in place with existing space, vehicles, tools, and equipment would, in all probability, be dismantled. It would be cost-inefficient to dismantle the program and at a later date, when conservation and categorical programs become popular again, establish a new program.

Five, State block grants, as currently proposed by the administration, allow State governments to transfer 10 percent of the total block grant to another block grant. It is projected that such transfers will occur from energy block grants when other block grants, such as health and social services and special interests are stronger politically.

In the "Governors' Bulletin," dated May 15, 1981, they quote Tennessee Gov. Lamar Alexander as stating, "He would probably recommend that some Federal funds now slated for low income energy relief in his State be used to deal with infant mortality and other health problems, thereby rendering Federal cuts in those areas negligible in his State, or even increasing spending above current levels."

Therefore, overall reductions in block grants, plus the 10 percent transferability of State governments will substantially reduce fund availability in the State energy block grant and especially funds for the low income weatherization program.

Six, as members of the committee may be aware, the Administration's proposed legislation for the low-income energy assistance program permits States to transfer up to 15 percent of funds received for that program to energy conservation efforts. Some view such proposed legislation as a way to continue the weatherization program in the event that S. 1544 or other similar legislation was enacted by Congress. My experience at the local and State level in the State of Wisconsin indicates that this approach to continuing the low-income weatherization will probably not work. The reasons are as follows:

(a) Current proposed funding levels for the low-income energy assistance program are inadequate, severely limiting States' options to transfer funds to weatherization. In the State of Wisconsin if the low-income energy assistance program funding levels are reduced substantially below last year's appropriation, the State will not be able to transfer funds to the weatherization program.

(b) Proposed low-income energy assistance program legislation like other block grants, as indicated earlier, permit States to transfer up to 10 percent of the funds to other block grants. The State of Wisconsin as well as other States plan to implement such transfers, especially in the light of projected significantly reduced funding levels in the social services block grants. Such actions on the part of the States reduces fund availability for implementing low-income energy assistance program and transfer of funds to the weatherization program. So that approach appears to be unworkable in the sense that both the amount of money and the transferability provisions of the legislation and what we expect to be in the legislation, if enacted, would reduce the amount of money available to States substantially in terms of helping low-income people.

The proposed legislation, S. 1544, also includes other significant problems that create further hardships for the poor. The proposed funding level, $200 million, further reduces the possibility of States utilizing funds for the weatherization program. This funding level represents, at a minimum, a 50 percent fiscal reduction from last year.

Strong competing interests, locally and statewide, for such limited funds reduces and in many States, eliminates the probability of the weatherization program being funded through S. 1544. The matching fund provision of the legislation creates disincentives for many States to utilize any of the funds for any program. The allocation formula in the proposed legislation is clearly inadequate. The formula does not relate to climate and/or degree days, low income population, and/or need and energy use.

Finally, I strongly oppose the technical and conforming amendments to the legislation. The elimination of such legislation, as proposed by the amendments, creates hardships for all consumers, especially the poor who will not receive necessary services as a result of the amendments.

It should be noted that from a local, operational perspective, it took several years to develop an effective and successful weatherization program. In Milwaukee, Wis., we began the program in 1976. As a result of considerable learning experiences, our staff have developed the expertise to weatherize low income homes that yield annual savings of 20-25 percent per household. For low income families and the elderly, such savings have been necessary in order for them to have enough income to pay rent, purchase food, energy and other necessities. In our State, we have discovered that during the winter months low income households spend between 65-75 percent of their income on fuel and housing. Thus, the weatherization program becomes absolutely necessary to relieve and minimize the rising costs of fuel. S. 1544, for all practical purposes, eliminates the weatherization program and for that reason I strongly oppose it.

During the current heating season, locally and nationally, we will observe more human hardship than we have in previous years. The dilemma confronting low income people, food or fuel, will be heightened as a result of budget cuts across Federal programs. The health and safety of low income households and the elderly will be jeopardized and we may again read about people who die as a result of insufficient fuel. Continuation of the weatherization program, as a categorical progran, does not eliminate that problem. It does, however, minimize the impact of the problem and can help thousands of households survive through the winter.

Thank you.

[The prepared statement of Mr. Maggiore follows:]

TESTIMONY OF

ANTHONY J. MAGGIORE, JR.

ASSOCIATE DIRECTOR

COMMUNITY RELATIONS-SOCIAL DEVELOPMENT COMMISSION

IN

MILWAUKEE COUNTY

TO

U. S. SENATE

COMMITTEE ON

ENERGY AND

NATURAL RESOURCES

"STATE AND LOCAL ENERGY BLOCK
GRANT ACT OF 1981 --- S.1544
IMPACT ON LOW INCOME HOUSEHOLDS"

OCTOBER 16, 1981

Mr. Chairman, my name is Anthony J. Maggiore, Jr. I am representing the National Community Action Agency Executive Directors Association and the National Community Action Foundation. I am the Associate Director for the Community Relations-Social Development Commission - a public intergovernmental social planning and Community Action Agency in Milwaukee County. Until recently, I was also a member of the Fuel Oil Marketing Advisory Committee of the U. S. Department of Energy and served as Chairperson of a committee which published reports on Low Income Energy Assistance Programs in 1979 and 1980. A copy of the latest report dated July, 1980 and titled "Low Income Energy Assistance Programs-A Profile of Need and Policy Options" is submitted to the committee for the record.

I want to thank you for the opportunity to testify before your Committee on "State and Local Energy Block Grant Act of 1981, S-1544".

The major issues confronting all energy consumers today are partially the result of a government policy which promotes increased costs for energy in order to promote needed conservation and increased domestic production.

In my opinion, another policy is essential, a policy which relieves low income and elderly of the immediate and intolerable burdens imposed by this policy of increased costs. Without such a policy, the health and safety — even the lives -- of low income persons, and especially the elderly, will be jeopardized.

During this testimony, I will attempt to outline the impact of rising energy costs on low income households, benefits from weatherization programs, comments regarding S.1544 and my recommendations to the committee.

I. IMPACT OF RISING ENERGY PRICES ON LOW INCOME HOUSEHOLDS

A report published in July, 1980 by the Fuel Oil Marketing Advisory Committee (FOMAC) of the U. S. Department of Energy finds that, overall the poor:

1. will expend at least 35% of their income directly on energy and will spend at least 21% of their income on household energy;
2. will still continue to pay nearly 4 times more the percentage of their income on household energy than the average American household;
3. suffered a loss in average total income in real terms since 1972, making the acquisition of adequate energy for this group more difficult;
4. will lose over $6 billion in purchasing power in 1980 due to increases in energy costs;
5. have experienced, in certain regions of the country, a particularly harsh and disproportionate burden in paying for energy;
6. have less ability to offset increased energy costs through product substitution in the marketplace than for any other necessity utilized by poor households;
7. will use less than 50% of the total energy consumed by the average American household and 25% less household energy;
8. will continue, by necessity, to occupy low quality, energy inefficient housing stock that further penalizes them in their effort to cut energy costs; and,
9. lack financial resources to implement significant additional conservation imporvements.

II. BENEFITS FROM WEATHERIZATION

As energy prices continue to rise, the need for conservation becomes even more acute. A number of basic realities must be acknowledged if a long term solution to the energy needs of the poor is to be found:

1. The residential structures of low income people tend to be in poorer condition and less energy efficient than those of higher income families. As a recent national housing survey shows, basic energy conserving features are more likely to be absent in the housing of the poor and near poor (See Table I).
2. This lack of energy efficiency results in annual fuel bills substantially higher than they should be.
3. In terms of simple conservation measures such as thermostat set-backs, caulking, and weatherstripping, the poor have already conserved as much as possible. Yet, the they lack the necessary funds to invest in additional conservation such as weatherization and use of alternative energy sources which would result in greater energy savings. A recent DOE survey of conservation behavior shows that the poor are just as likely as average income households to take cost-free conservation measures (such as shutting off rooms; see Table II). However, as the cost of conservation measures increase (such as adding insulation) the poor are less likely than average income households to implement such measures.

TABLE I

EXISTING ENERGY-RELATED CHARACTERISTICS BY 1977 FAMILY INCOME 1/

(Winter 1978-79)

	1977 FAMILY INCOME					
	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,00 or More
TOTAL	100%	100%	100%	100%	100%	100%
STORM WINDOWS						
All windows covered	30	34	39	48	43	48
Some windows covered	19	20	19	18	25	22
No windows covered	52	46	43	34	32	30
STORM DOORS						
All doors covered	30	38	36	41	39	37
Some doors covered	18	22	21	25	25	31
No doors covered	52	41	42	34	34	31
ATTIC INSULATION						
Have insulation	41	57	68	74	80	86
No insulation	37	29	19	15	9	9
Don't know	22	13	14	11	11	5
HAVE WALL INSULATION						
Yes	28	41	51	56	57	63
No	44	34	25	25	23	18
Don't know	27	24	24	19	20	19

1/ Source: U.S. Department of Energy, Residential Energy Consumption Survey: Conservation, Washington, D.C., Feb. 1980, p. 31.

TABLE II

CONSERVATION EFFORTS UNDERTAKEN IN 1978 BY 1977 FAMILY INCOME 2/
(Percentage of Households)

	1977 FAMILY INCOME					
	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,00 or More
Type of Conservation Measure:						
ROOMS CLOSED OFF						
Yes	28	33	31	31	32	30
No	59	55	56	61	57	60
No answer	13	12	13	8	11	10
ADDED INEXPENSIVE INSULATION						
Yes	18	23	26	32	31	27
No	82	77	74	68	69	73
ADDED INEXPENSIVE EQUIPMENT						
Yes	4	4	7	8	11	12
No	96	96	93	92	89	88
ADDED EXPENSIVE INSULATION						
Yes	3	3	6	6	8	9
No	97	97	94	94	92	91
ADDED EXPENSIVE EQUIPMENT						
Yes	3	3	5	5	7	8
No	97	97	95	95	93	92

2/ Source: U.S. Department of Energy, Residential Energy Consumption Survey: Conservation, Washington, D.C., Feb. 1980, pp. 31, 115.

The Federal Weatherization Program has been in existence since 1973. The program was developed and administered by the Community Services Administration in response to the impact of OPEC price increases on low income households. Through Congressional Action, the program was transferred to the U. S. Department of Energy (DOE) in 1977. Under the DOE program, grants are made to states which generally subcontract to Community Action Agencies to serve as local delivery mechanism. Most geographic areas of the county are presently being served by the program.

Though the DOE Weatherization Program initially had serious management and coordination problems, during the past year, the program had improved significantly. For example, during calendar year 1979 the DOE program weatherized 144,000 housing units throughout the county. During calendar year 1980, the DOE program had weatherized over 311,000 housing units - an increase of over 100%.

As program management and other related problems (EX. CETA labor) improved, the number of homes weatherized increased dramatically with an accompaning increase in expenditures. The program is currently spending program funds at the rate of 400 million per year, compared to the FY 81 appropriation of 182 million. As a result of the increase in expenditures, two states (Indiana and South Carolina) already have utilized all of their weatherization funds and are in the process of terminating operations. Unless there is supplemental appropriation to DOE during the next few months, operations in over 30 states will terminate by the end of Summer, 1981.

Recent studies of DOE weatherization programs in Indiana, Michigan, Minnesota, Pennsylvania, Utah, Washington, and Wisconsin indicated an annual household energy saving of 20-25%. Since current data indicates that low income households on the average, spend at least 21% of their income on household energy (in the Midwest and Northeast region of the U. S. it is over 30%), the projected 20-25% energy conservation saving is necessary for the household to have sufficient finances to purchase food, shelter, clothing, etc.

The National Weatherization Program serves eligible low income households with a priority placed on the Elderly and Handicapped. The recent success of the program has documented clearly the effectiveness of the program and the financial relief provided to the household's receiving services.

III. COMMENTS REGARDING S.1544

S.1544 proposes the establishment of a State Energy Block Grant. The disadvantages of such proposed legislation are as follows:

1. The National energy problems and priorities are not addressed on a National scale but on a state by state basis. Thus, in some states, such problems and priorities will be addressed, in others, they may not be dealt with at all, or if so, minimally.

Thus, Federal energy policies and decisions would not be directly related to actions designed to deal with impact of such policies on a state and local level.

Therefore, if a State Energy Block Grant were to be passed by Congress and implemented, the future integrity of Federal energy policies would be jeopardized. Such policies are only effective to the extent that the Federal Government can assure implementation of such policies on the State and local level.

2. State Energy Block Grants would not assure the continuation of the current Federal low income weatherization program.

Energy programs potentially grouped into a block grant program such as, State Planning, schools and hospitals, commercial building conservation, energy extension, low income weatherization programs, etc., would compete for funds under the block grant approach.

Since the other competing interests have considerably more political power than low income people, the poor, as always, would lose in such competition. Therefore, it is doubtful that in most states, the program would continue and in those states where it did, one can assume a disproportionately reduced level of funding and effort.

3. The proposed State Energy Block Grant does not include income eligibility guidelines, performance and service standards, reporting and accountability mechanisms and limitation on administrative costs.

Based on the Administration's block grant programs, it would be difficult to determine, on a national basis, if low income households were served, what kind of service they received, whether or not state and local administering agencies were weatherizing household units at an acceptable performance level, percentage of administrative costs to operational costs, etc.

National weatherization standards developed over the past 7 years by the Department of Energy, Community Services Administration, National Bureau of Standards, and other Federal Agencies may not be utilized by state and local governments under the energy block grant approach. Thus, as one might say, "the wheel may be reinvented" at a substantial cost and hardship to low income households.

4. The currently, effectively, operating weatherization program with trained personnel, management systems in place with existing space, vehicles, tools, and equipment would be, in all probability, dismanteled. It would be cost inefficient to dismantel the current program and at a later date, when conservation and categorical programs become popular again, establish a new program.

5. State block grants as currently proposed by the Administration allows state government to transfer 10% of the total block grant to another block grant. It is projected that such transfer will occur from an energy block grant to other block grants such as Health and Social Services where special interests are stronger, politically. For example, Governors' Bulletin, dated May 15, 1981, published by the National Governors' Association quotes Tennessee

Governor Lamar Alexander as stating "he would probably recommend that some federal funds now slated for low income energy relief in his state be used to deal with infant mortality and other health problems, thereby rendering federal cuts in those areas negligible in his state or even increasing spending above current levels." Therefore, overall reductions in block grants plus the 10% transferability of state governments will substantially reduce fund availability in the state energy block grant and especially, funds for the low income weatherization program

6. Finally, as members of the committee may be aware, the Administration's proposed legislation for the Low-Income Energy Assistance Program (LIEAP) permits states to transfer up to 15% of funds received for that program to energy conservation efforts, such as the low-income weatherization program. Some observers view such proposed legislation as a way to continue the weatherization program in the event that S1544 or other similar legislation was enacted by Congress. My experiences at the local and state level in the State of Wisconsin indicates that this approach to continuing the low-income weatherization will probably not work. The reasons are as follows:

A. Current proposed funding levels for LIEAP are inadequate, severely limiting states options to transfer funds to weatherization. In the State of Wisconsin if the LIEAP funding levels are reduced substantially below last year's appropriation, the state will not be able to transfer funds to the weatherization program.

B. Proposed LIEAP legislation like other block grants, as indicated earlier, permit states to transfer up to 10% of the funds to other Block Grants. The State of Wisconsin as well as other states plan to implement such transfers, especially in the light of projected significantly reduced funding levels in the social services block grants. Such actions on the part of the states reduces fund availability for implementing LIEAP and transfer of funds to the weatherization program.

The proposed legislation-S.1544 also includes other significant problems that create further hardships for the poor. The proposed funding level-200 Million-further reduces the possibility of states utilizing funds for the Weatherization Program. This funding level represents, at a minimum, a 50% fiscal reduction from last year.

Strong competing interests, locally and statewide, for such limited funds reduces and in many states, eliminates the probability of the Weatherization Program being funded through S.1544. The matching fund provision of the legislation creates disincentives for many states to utilize any of the funds for any program. The allocation formula in the proposed legislation is clearly inadequate. The formula does not relate to climate and/or degree days, low income population, and/or need.

Finally, I strongly oppose the technical and conforming Amendments to the legislation. The elimination of such legislation, as proposed by the amendments, creates hardships for all consumers, especially the poor-who will not receive necessary services as a result of the Amendments.

It should be noted that from a local, operational perspective, it took several years to develop an effective and successful weatherization program. In Milwaukee, Wisconsin we began the program in 1976. As a result of considerable learning experiences, our staff have developed the expertise to weatherize low income homes that yield annual savings of 20-25% per household. For low income families and the elderly, such savings have been necessary in order for them to have enough income to pay rent, purchase food, energy and other necessities. In our state, we have discovered that during the winter months, low income households spend between 65-75% of their income on fuel and housing. Thus, the weatherization program becomes absolutely necessary to relieve and minimize the rising costs of fuel. S.1544, for all practical purposes, eliminates the weatherization program and for that reason I strongly oppose it.

During the current heating season, locally and nationally, we will observe more human hardship than we have in previous years. The dilemma confronting low income people-Food or Fuel-will be heightened as a result of budget cuts across Federal programs. The health and safety of low income households and the elderly will be jeopardized and we may again read about people who die as a result of insufficient fuel. Continuation of the weatherization program, as a categorical program, does not eliminate that problem. It does, however, minimize the impact of the problem and can help thousands of households survive through the winter.

IV. RECOMMENDATIONS

1. Continue the current National Weatherization Program as a Federal categorical program with national standards and requirements, accountability, and targeting of resources to the elderly, handicapped, and most needy households.

2. Promote and legislate a comprehensive system of services to assist low income households in coping with the increased cost of energy, including but not limited to a national weatherization program, fuel assistance program, energy education conservation program, utilization of appropriate and alternative technologies, etc.

3. Increase the FY 82 appropriation to $400 Million.

4. Maintain consistency in government sponsorship of the weatherization program. Time and tax dollars are wasted when programs are moved from one government sponsoring agency to another. New regulations, new systems of administration and new staff all tend to disrupt program operations for a few years after the move. This fact was clearly demonstrated when the program moved from the Community Services Administration to DOE.

State and local governments do *not* have a notable history in initiating programs that address basic health, income, and energy needs of low income people. If Congress eliminates energy categorical programs, it is probable that many, if not most, current low income weatherization programs may cease to exist. Low income people cannot possible compete with the power and influence of special interests (i.e., schools and hospitals, universities, etc.) at the local or state level for State Energy Block Grant funds.

In addition, the poor cannot afford "conservation through price increases", as they simple do not have the resources to make conservation improvements, and at the same time, cannot afford to pay their fuel/utility bills. The energy problems of the poor will only worsen if a national categorical weatherization/conservation effort for low income households does not exist.

A State Energy Block Grant program *does not assure* the continuation of such a program. Low income people need the strong role of the Federal government to protect *their* interests.

Senator **Ford**. Thank you very much. Let me just say that you make some very tough statements in your report to the committee, but I realize that you are out there in the trenches and you see it and work with it every day, and, therefore, I expect these tough statements that you made.

In your statement, which I read prior to your testimony today, it indicates that you have had a 100 percent increase in weatherization, if I am correct, 1980 over 1979. That was under the previous administration, where we have had some problems in the beginning with gearing up and that sort of thing, but you did have a 100 percent increase in 1980 over 1979. Was that same organizational structure carried through into 1981? Do you see improvement in 1981 over 1980 based on the funding available? Do you think we have a possibility of having another 100 percent increase?

Mr. **Maggiore**. In terms of several factors that would probably not be true. I don't have the current data, but in 1981, with the loss of CETA, that has represented a sizeable decrease in the funds going into that program. Second, the program has run out of funds as of right now. Currently no funds have been released from the Department of Energy as of October 1. There has been a slowdown throughout the country. Hundreds of people have been laid off. They have gone on welfare by and large in terms of CETA workers. Published reports in Washington that most people got jobs in private industry, I don't know of any city that can document that. In our community most people had to go back to public assistance. This private industry they went to must be a mythical industry. So I don't think there has been a 100 percent increase during 1981. I think that would be impossible to achieve.

Senator **Ford**. It is my understanding that DOE is not making any low income weatherization grants now, and D0E does not know when they will start making grants. What do you see happening on the local level with this program?

Mr. **Maggiore**. Many grantees around the country have funds that are extended through December. In many States the programs have already closed. In Indiana they have closed completely. In South Carolina they have closed. So unless the State comes through with money of its own, by and large the programs will close around the country. I suspect 80 percent will be closed by December. It might be higher, unless there is some sort of funding. The LIAP program, which the administration has suggested 15 percent can be used for weatherization, there is a crisis, especially in the Northern States. The funding levels are half of what is needed around the country. If you want to give a poor household $100 each, the administration is far from meeting that level of assistance so it is impractical for many States to transfer funds for weatherization. Maybe Southern and Western States might be able to do it.

Unless the weatherization program is funded, I see most programs going out of existence during the next year.

Senator **Ford**. Dr. Cooper, you made a statement in your statement as to the cost benefit for oil and other items, am I correct in that?

Dr. **Cooper**. Yes; I did.

Senator **Ford**. Do you have a cost-benefit ratio in terms of energy savings, the dollars spent and the dollars saved? I don't believe you had that in there. You gave percentages, cost per barrel of oil, but the dollars saved, a 1 to 4 ratio, a 1 to 5 ratio, I may have missed that.

Dr. **Cooper**. In the report which we will submit, we choose to calculate the dollars per barrel of energy saved, barrel of oil equivalent saved. It would be easy for me to calculate savings to investment ratio.

Senator **Ford**. I think that would be easier for some of us to grasp here, that you put up dollar and it generated or saved 4, it might be easier than saying 20 to 41 dollars a barrel.

Dr. **Cooper**. The difficulty there is choosing the cost of capital and different people choose different numbers, but we could certainly provide that.

Senator **Ford**. You will be just as close as the other report you referred to a while ago. If you would do that for the committee, I would be grateful to you.

Dr. Myers, representing American University, would you draft a provision, and I think everybody understands and Senator Domenici, I think, made it fairly clear in a round about way that we are going to block grants and we are going to cut down and this is what we are expecting in the next 3½ years—could you and your group draft a provision subject to the block grant program as it relates to colleges and universities in the area on which you testified today that you were so concerned with?

Dr. **Myers**. Yes, sir.

Senator **Ford**. Would you include private and public?

Dr. **Myers**. Yes.

Senator **Ford**. We would like hard evidence as to if we go to the block grant we would have the provision to be studied to take care of your interest.

Dr. **Myers**. Fine.

Senator **Ford**. Mr. Lyle, you have an impressive group of people on your letterhead, former President Gerald Ford and all the Secretaries of the President's Cabinet as Honorary Chairmen. Do they ever come to your meetings or do you just stick them on your letterhead?

Mr. **Lyle**. At our annual meeting we had Mr. Stockman come and discuss his plans.

Senator **Ford**. Did you burn him or let him get out?

Mr. **Lyle**. It was a vigorous discussion. He was the only one to come to our meeting.

Senator **Ford**. You discussed this piece of legislation with him?

Mr. **Lyle**. No, sir. We didn't get into block grants.

Senator **Ford**. I see you have Senator Percy, Kissinger, David Rockefeller, Elvis Starr, you have an impressive list there.

Let me say to you that you made an interesting statement that the first thing needed in the grant program is for DOE to revise the regulations implementing current statutes, and I think you said they had no prohibition about issuing or changing regulations whatsoever.

Mr. **Lyle**. Yes, sir.

Senator **Ford**. Would you be willing to submit to DOE a petition for rulemaking in which it would outline what regulatory changes DOE should start with?

Mr. **Lyle**. I think that may be very possible, sir. I would have to check back with my organization, but I think that is the route we would like to see us all proceed on, and once we ferret out what needs to be done statutorily, then to come back before this committee.

Senator **Ford**. I would be very interested in such an outline because I think it would help focus on what statutory amendments are really necessary if the regulatory changes are made and it might narrow our scope of attention here at the committee.

Let me just ask in closing, and I have to run, too, what statutory changes would you suggest in the existing laws once the regulatory changes that you envision are made? Would we, after the regulatory changes, would we have to go to a block grant approach?

Mr. **Lyle**. Sir, I can't answer that at this point. That is the reason why we would like to see the study done. I, for one, am not convinced that statutory changes are necessary, so I would like to see the study and let the chips fall where they may.

Senator **Ford**. How long do you think it will take for the study to be completed?

Mr. **Lyle**. That would be more in the DOE's discretion. I really couldn't say. I would think that if they are interested in modifying regulations and lightening burdens on States and localities, as stated in Mr. Stockman's letter to this committee introduced at the time S. 1544 was introduced in the Congressional Record, that they would proceed with all deliberate speed. I would hope they would.

Senator **Ford**. Well, I see two or three things happened and I was accused of spewing here one day, and I don't mind being accused of that. I have had mighty good training from the other side on learning how to spew out now that we are in the minority.

It seems to me not only are we going to blame Congress, but now we are going to blame Congress and the mayors and the county judges for not operating correctly, and all the blame for the program not working is going to filter right down to the community where you work, and in the trenches where you are, and this statement of stealing bothers me, Tony, it bothers me considerably. A decision can be made which may not be the proper one in others' views.

There is something in relation to revenue sharing, that this money should be taken to the local level and let citizens come to the courthouse and express their desires on what is best for their community, and go from there, and let the government closest to the people make the kind of decision that is necessary. I am not sure that you are going to find many of those out there who are being looked at every day, have to see their constituents on the street every day, account to them weekly at city hall at a meeting, are going to be too anxious to make judgments that are in conflict or wasteful unless the local citizenry agreed to the approach they are taking. So I would be hopeful that whatever we do, that the responsible kind of leadership in communities and the States would not allow what you envision to occur.

Having been a Governor at one time, and having operated a State, and having left $300 million in surplus, I somehow kind of cringe when you make those kind of statements of governmental entities stealing and so forth.

Mr. **Maggiore**. You know what I mean by "stealing," though.

Senator **Ford**. I thought stealing was when somebody broke into your house and took something. Differences in judgment, where money ought to be spent, I don't characterize as stealing.

Mr. **Maggiore**. I am talking about using the money in ways that Congress has not intended.

Senator **Ford**. But if Congress gives them a free ride, we are not saying that we are giving any intention as to how they should spend it.

Mr. **Maggiore**. In the language of the legislation you indicate the purpose of a certain block grant. You are right, Governors don't have to follow that at all, and my point of view relative to stealing, it is stealing in the sense of taking it from one group to another. Low income people have no substantial political power at all. Those of us working with them try to organize that, but that is extremely difficult. That is not comparable to the political interest and political power of other groups. So, in effect, it is stealing. You have money going to low income groups that is not going to low income groups under the proposal of block grant legislation.

Senator **Ford**. What you are saying then is, in reference to stealing, you mean that those who are influential will have lobbying ability in State legislatures and with Governors, that they would be the more fortunate in the allocation of funds than the low income groups.

Mr. **Maggiore**. A low income family who is getting assistance today won't be getting it tomorrow because the money will be going to somebody else. So from a low income perspective, what they have now they won't have tomorrow.

Senator **Ford**. Do you call low income groups those on fixed income?

Mr. **Maggiore**. Yes.

Senator **Ford**. I find our senior citizens group is probably one of the most effective lobbying groups I have ever run into. It is like trying to argue with your mother or father, and you don't get very far with them. I am impressed with their lobbying ability. We have had a senior citizen program where they have interned in my office, and it has been a smart, intelligent experienced group that has come far. If you are referring to senior citizens as those in the low income group that have no lobbying ability, I want to take exception with you a little bit, because they do an excellent job in my State and in some of those senior citizen tours, they comprise one political precinct and you either get them or you don't, and that is effective.

Mr. **Maggiore**. Senior citizens on social security are definitely a powerful group, but I am also speaking of seniors not on social security, the blacks and Puerto Ricans. They don't have the political voice. Very few people speak with them. The migrant workers, very few. And proportionately they get very little resources and proportionately they will lose the most out of the block grant program. I think you will read about it once somebody investigates it.

I am not suggesting stealing from a store. I am talking about outright misuse because it will be in the hands of the Governor, it goes from here in Washington to the Governor, so the scandals will shift to the State level. When you do that to 50 States you have lost control in Washington.

You will have a pattern of events that can occur that will take a lot of new legislation, new guidelines to straighten out, in addition to the social and human problems that will result from this kind of block grant legislation. I know 2 years from now it will cost twice as much to resolve and create in many States some disorders that we don't want to see. One does not make these kinds of cuts without serious social problems in the future.

Senator FORD. How many problems have you seen with revenue sharing?

Mr. MAGGIORE. I am not involved in revenue sharing. Observing it at local levels is all I have. There have been issues—I haven't seen—quite frankly, I can't speak to that issue.

Senator FORD. Revenue sharing is basically a block grant. It is given with very few strings attached, one-third to the State, two-thirds to the community. When I was Governor we took our one-third and matched the local two-thirds in order to assist them in sewer and water and et cetera. My biggest problem with revenue sharing has been that they place that money in recurring expenses instead of non-recurring expenses and get into capital construction and other things because this may not last forever and the local entity should take care of the salaries for the police and firemen that would be a continuing expense to the city. I know of very few abuses relating to revenue sharing, so you are getting into a judgmental basis, and revenue sharing in all probability is going to be cut some, but revenue sharing money is anticipated in the budgetary process of the State and of your local communities. That is anticipated in our budgetmaking process.

Mr. MAGGIORE. Locally and throughout the country studies have indicated that revenue sharing—not much revenue funds have been used to help low income people. My point earlier is that funds today used for low income people will not be used under that kind of approach. Every study done of revenue sharing at a State and local level shows an incredibly small amount of money specifically going to people.

Years ago LEA ran a block grant type approach, years ago. They were huge—Governors bought airplanes. That was questioned. Maybe that was legal in Florida or wherever it was. A number of other misuses occurred. I agree, overall misuse theoretically should not happen, but it has happened in the past. The studies of the LEA funds and how they were distributed in the country show a clear misuse. Judgments were made as to whether or not a Governor should have a personal airplane or not.

The studies raised those kinds of questions and we experienced that problem. There was a series of hearings in Washington relative to the LEA funds at that time. I wouldn't expect any different kind of a problem in the future with these kinds of proposals here in Washington than we have in the past, and I think the past, and I think we have learned from the past. There are a series of problems with this type of thing.

Senator FORD. I agree that the State should furnish an airplane, but in the highway fund, it is very necessary and saves money for traffic equipment to be taken by airplane to take a picture of the terrain and design roads, so you have one agency that can buy the airplane and it is all right, we have another agency you say it shouldn't. We were attempting to improve law enforcement in LEA to give them communications and training. We went to the 15 percent incentive where a law enforcement official had 240 hours before he became official. And then a continued 15 percent salary incentive, that we then required 40 hours of training in addition to the 240 originally in order to have that as an incentive. That was LEA grants.

What we hear are the bad things. What we do not hear are the good things. So the only thing you said about LEAA grants is an airplane purchased by the Governor of Florida, but I can give you bang, bang, bang, bang, the LEAA program in Kentucky, for instance, maybe we have had things that shouldn't have been done, I don't recall those, but I am saying the law enforcement ability in my State was enhanced considerably, even went to 24 hour coverage that we did not have before. It improved and enhanced our ability.

All we hear is bad. We are negative. There are some positive things that have gone on.

Mr. MAGGIORE. I agree. I am not denying that, but I do think one has to place perspective. If you are speaking on the interest of people, what the history has been to date, the governmental structure has protected by and large throughout the United States the interests of low income people. When one talks about block grants, the history is not there in terms of the States by and large, not all States, but most States, not having a notable history relative to assisting low income people. When speaking specifically about low income people, the documentation on the part of the States helping low income people is not there.

Senator FORD. Let me ask you this. This is the last question. I enjoy talking with you. I have an open mind on almost everything until I close it.

Didn't we offer States block grants for a trial period last year or the year before? Not in energy, particularly, but block grant programs—didn't we do that? It seems like——

Mr. MAGGIORE. Other than LEAA?

Senator FORD. Two States, and we picked those out for a trial period. That trial period is not into its second year, I believe, and I think you ought to look at that because before this administration came in there was the approach of going to block grants to see if they were working and there was competition among the States to take the block grants and see how well they worked. We are in the second fiscal year of block grants for those two States, as I recall, so it might behoove us to look at those two States and see how well they have been able to operate under the block grant program, to see if they have been effective, efficient, if they have gotten money to the people anticipated to be under the block grant and have those States operated correctly. There might be something we need to look at in order to make a judgment.

Mr. **Maggiore**. If one goes categorical all the way to block grants, I think the evils of categorical programs become the evils of everything being block grants. Maybe we need a combination of both, one distinguishes what should be categorical, for whom and why, and what should be block grant, for whom and why, and that might be the right approach.

Senator **Ford**. I agree. That is why we have so many clubs in the golf bag. Sometimes you want to hit it 500 yards and sometimes it is just a chip shot.

Thank you.

My next appointment may be over before I get there, but I think I have learned more from you all than from my next appointment. Thank you very much.

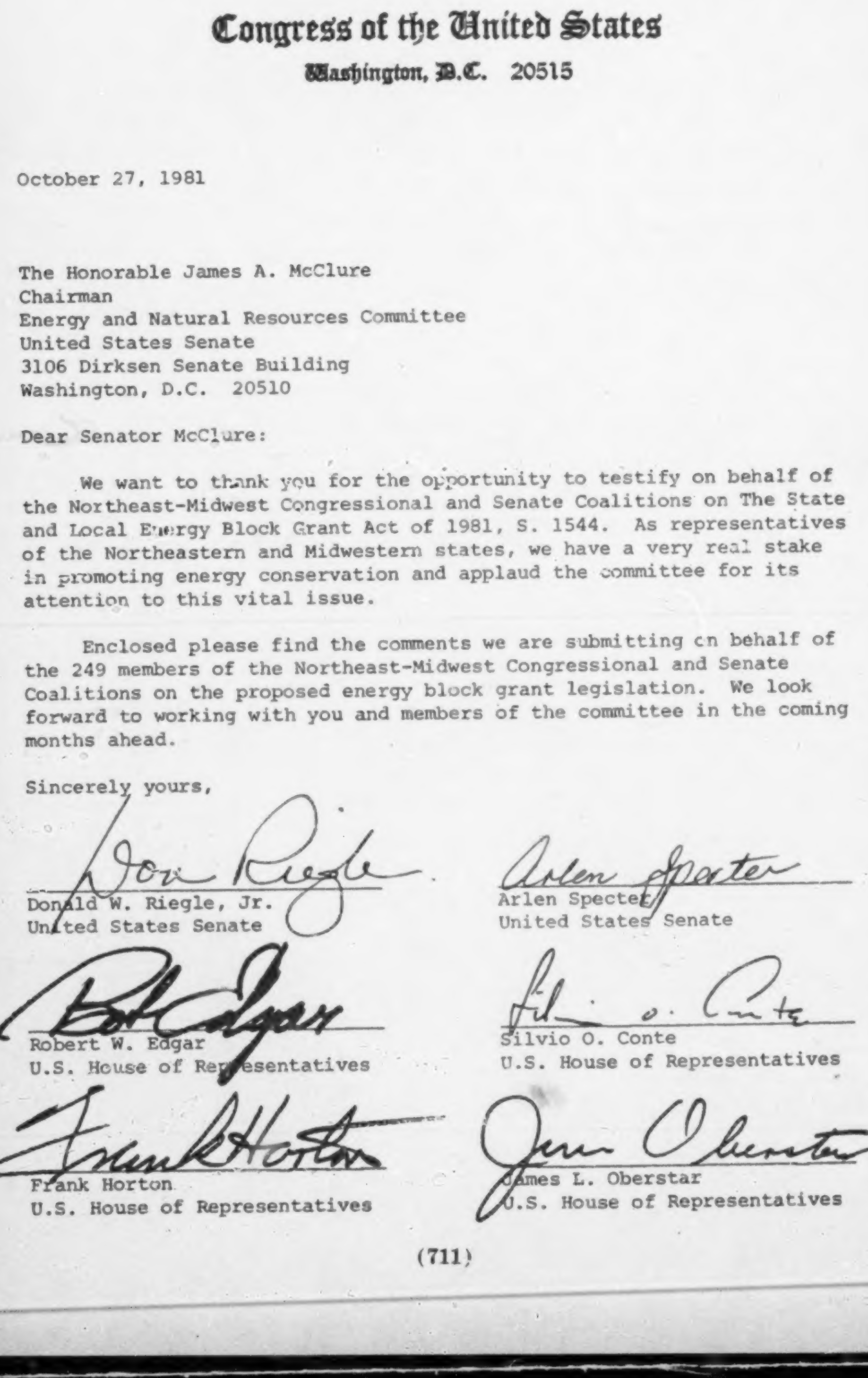
Tony, one of the States that is now the experimental State for block grants is Wisconsin. So would you check it when you get home?

The hearing is adjourned.

[Whereupon, at 12:45 p.m. the hearing was adjourned.]

APPENDIX

ADDITIONAL STATEMENTS SUBMITTED FOR THE RECORD



Congress of the United States
Washington, D.C. 20515

October 27, 1981

The Honorable James A. McClure
Chairman
Energy and Natural Resources Committee
United States Senate
3106 Dirksen Senate Building
Washington, D.C. 20510

Dear Senator McClure:

We want to thank you for the opportunity to testify on behalf of the Northeast-Midwest Congressional and Senate Coalitions on The State and Local Energy Block Grant Act of 1981, S. 1544. As representatives of the Northeastern and Midwestern states, we have a very real stake in promoting energy conservation and applaud the committee for its attention to this vital issue.

Enclosed please find the comments we are submitting on behalf of the 249 members of the Northeast-Midwest Congressional and Senate Coalitions on the proposed energy block grant legislation. We look forward to working with you and members of the committee in the coming months ahead.

Sincerely yours,

Don Riegle
Donald W. Riegle, Jr.
United States Senate

Arlen Specter
Arlen Specter
United States Senate

Bob Edgar
Robert W. Edgar
U.S. House of Representatives

Silvio O. Conte
Silvio O. Conte
U.S. House of Representatives

Frank Horton
Frank Horton
U.S. House of Representatives

Jim Oberstar
James L. Oberstar
U.S. House of Representatives

S. 1544

The State and Local Energy Block Grant Act of 1981

Testimony Submitted by
Senator Donald W. Riegle, Jr. - Co-Chairman
Senator Arlen Specter - Co-Chairman
Representative Robert W. Edgar - Chairman
Representative James L. Oberstar - Co-Chairman
Representative Frank Horton - Co-Chairman
Representative Silvio Conte - Co-Chairman

on behalf of the
Northeast-Midwest Senate Coalition
Northeast-Midwest Congressional Coalition

Before the
Committee on Energy and Natural Resources
U.S. Senate

October 27, 1981

On behalf of the Northeast-Midwest Congressional and Senate Coalitions, we would like to thank Senator James A. McClure and the other members of the Senate Energy and Natural Resources Committee for the opportunity to submit our comments on "The State and Local Energy Block Grant Act of 1981." As members of the Executive Committee of the 2 organizations, we represent the House and Senate members from the 18 states in the Northeastern and Midwestern United States. The Coalitions seek to inform members about the regional implications of national policies and proposals, and to influence those issues of greatest importance to Northeastern and Midwestern states.

Few issues are as important to the Northeast-Midwest region as energy. Our disproportionate dependence on imported oil, the preponderence of an older, energy inefficient housing stock, the lack of oil and gas reserves, and inordinately high energy prices have combined to make our region most vulnerable to energy price rises and supply interruptions. The Northeast-Midwest region, aptly labeled the "Frostbelt", must grapple with the problems common to energy consuming states on a daily basis -- particularly during the coming winter months when cold weather and high energy prices threaten the health and well-being of much of our low income and elderly population.

In an effort to develop a unified approach to solving our energy problems, the Northeast-Midwest Congressional Coalition conducted an energy agenda setting process during April, May and June of this year. Field hearings, chaired by Coalition members, were held in Stamford, Boston, Sioux City, St. Paul, and Pittsburgh, and covered the future of coal; co-generation, district heating and cooling, and municipal waste to energy systems; rural and urban perspectives on the use of conservation and renewable resources; and the effect of rising energy costs on the elderly and poor. The hearings culminated in a national conference in Washington on June 4. Over 350 public- and private-sector leaders, scholars, and others participated in the energy agenda setting process. The product of the 3 month exercise was an energy agenda that put the Coalition on record in support of energy conservation, renewable energy technologies and the increased use of coal.

In addition, during the same time, research conducted for the Coalition by the Northeast-Midwest Institute showed that America's energy bill in 1980 was $387 billion -- a massive increase over the $83 billion Americans paid for energy in 1970. After adjustment for the dollars decline in value, this represents an increase in energy spending in 1980 of 141 percent over the amount spent in 1970. This increase outstripped the decade's inflation rate of 94 percent and the small 37 percent increase in real personal income. The Northeast-Midwest region felt the impact of this increase particularly hard -- where the costs of residential and industrial energy were the highest in the nation.

It is within this context that Coalition members have continually supported energy conservation programs. The reconciliation bill, for example, maintains the authority for the energy conservation programs most important to the Northeast-Midwest region. And the importance of energy conservation and renewable energy technologies was reiterated recently when over 120 House Coalition members cosponsored a resolution putting the House on record in support of existing conservation and energy supply tax credits. Our region's support and dependence on conservation and renewable energy programs should not be underestimated.

S. 1544

The "State and Local Energy Block Grant Act of 1981" would repeal a number of existing conservation programs, require a state match, authorize $200 million for an energy block grant to states and distribute funds based primarily upon a state's population. While the block grant approach to funding conservation efforts may be worthwile, we feel that the provisions of this bill are not in the best interest of either the Northeastern and Midwestern states or the entire nation.

We have 4 major concerns:

Allocation Formula - 75 percent of the block grant funds would be allocated on the basis of state's population and 25 percent would be distributed equally among all states. The proposed formula would significantly reduce the proporation of energy conservation funds allocated to Northeastern and

Midwestern states.

Specifically, our primary concern with the formula is the reliance on population as the sole factor for allocating funds. We believe that it is necessary to incorporate a measure of need into the allocation formula. The low income weatherization program, for example, uses heating and cooling degree days to approximate need. This has the effect of targeting funds to those states where energy costs are highest and the potential to save energy and reduce our dependence upon imported oil is greatest.

Authorization Level - The proposed legislation would authorize a $200 million funding level for each of the fiscal years 1982, 1983 and 1984. We feel that this is inadequate. The low income weatherization program alone was funded at $182 million in fiscal 1981 and the reconciliation bill proposes $336 million (with $175 million earmarked for weatherization) for these programs.

A funding level of $200 million would require states to substantially reduce or eliminate many of their energy conservation activities. We are particularly concerned about the future of the low income weatherization program. The program has proven to be an effective method of reducing energy costs and saving scarce energy sources. With the intense competition for funds among a number of very desirable energy saving programs, the needs of our low income residents may not be adequately addressed.

State Match - The proposed legislation would require a 30 percent state match in fiscal 1982 and a 50 percent match in 1983 and 1984. We believe that this is excessive and would discriminate against energy consuming states -- many of whom are already experiencing serious fiscal problems. At least 87 percent of the states' surplus in fiscal 1982 is projected to be in the South and West.

We fear that these match requirements may force some of the states most in need of assistance to forego federal block grant funds.

Repeal of Catagorical Programs -- The legislation would repeal many existing energy conservation programs. While we would agree that regulatory changes could be made in some of the programs, we are concerned about outright repeal. The federal government would be removing itself from energy conservation activities -- leaving the states with no direction as to how to use the block grant funds most effectively. In addition, we fear that combining all of the programs into a single block grant increases the likelihood of total elimination or substantially reduced funding for future energy conservation efforts.

In summary, we urge the Committee to incorporate a measure of need for energy conservation in the block grant allocation formula, authorize a funding level adequate to conduct a comprehensive conservation program, and reduce the state match so that all states will be able to qualify for assistance.

Again, we thank the Committee for the opportunity to submit our comments.

STATE OF CALIFORNIA—THE RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

CALIFORNIA ENERGY COMMISSION
1111 HOWE AVENUE
SACRAMENTO, CALIFORNIA 95825

(916) 920-7709

October 8, 1981

RGY AND NATURAL RESOU
OCT 12 1981
D.C. 205

Senator James McClure
321 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator McClure:

The California Energy Commission opposes the creation of an energy block grant, as proposed by S 1544, to replace categorical grants for state energy funds and to reduce funding levels and terms authorized in the Omnibus Reconciliation Act of 1981. In addition, the Commission strongly opposes repeal of the Residential Conservation Service contained in S 1544. Abolishing the program is a major change in federal policy and should not be addressed in block grant legislation.

The state energy programs, including Low Income Weatherization, Schools and Hospitals, Energy Extension Service, State Energy Conservation Program, (EPCA/ECPA), and Emergency Energy Conservation, serve distinctively different target groups and conservation functions. These programs have survived past budget authorization and appropriation processes based on their individual merits. An energy block grant would simply obscure the major program reductions being forced by federal budget cuts and would potentially be used to dismantle state energy grants altogether.

Contrary to the claims of Department of Energy Officials, the State energy programs have proven to be effective in improving energy efficiency, in reducing the burden of rising energy prices, and in planning for supply shortages. State agencies, with this federal assistance, have made major contributions towards dealing with our national energy problems. We believe the energy savings attributable to these funds are significant and are saving many more dollars than are spent. Providing states with greater spending discretion and administrative flexibility is worthwhile but this can be accomplished within the existing grant structure.

We are particularly concerned that Congress may repeal the Residential Conservation Service (RCS) in energy block grant legislation. The program is too important to be abolished and should not be addressed in a funding bill.

The California RCS program is administered by the California Energy Commission. RCS audits first became available in California in April 1981, and are now available statewide. Over 16,000 audits have been completed and an additional 35,000 have been requested. We project that about 470,000 audits will be completed or requested within the first year. This program, which has our strong support, needs a chance to work before Congress reaches hasty conclusions about its value.

Many research projects demonstrate that RCS is a cost-effective utility program. An in-depth investigation by Department of Energy, using conservative assumptions and minimal response rates, shows benefits of about 3:1 for the utility and positive cash flows for the individuals who make conservation improvements. Several utilities began residential conservation programs before RCS was initiated. Investigations of these programs show that several of these existing programs have already saved energy at a cost well below the price of new supplies.

For utilities seeking new supplies, RCS and other conservation programs offer them "energy supply equivalents" at lower costs than conventional sources of supply. As utilities search for new supplies to meet demand, prices will rise even more dramatically than over the last few years, and the results of the RCS conservation measures will become even more valuable to utilities and to consumers. A lot of these higher priced new supplies could be avoided through the use of conservation measures which also increase home comfort. Our studies show that today conservation costs 2.5-4.5 cents /kWh whereas coal or oil costs 8-8.6 cents /kWh and we project conventional fuel prices will rise much faster than the cost of conservation. Moreover, conservation can begin displacing foreign oil almost immediately, while conventional supplies generally take several years to come on line.

In addition to increasing the installation of conservation measures, the RCS program meets the needs of consumers and utilities. As you know, the program is voluntary for consumers. Each residence is evaluated separately and conservation measures tailored to the particular situation are recommended to the utility customer. Consumers, as a result, have a basis for evaluating the need for conservation, rather than having to rely on the conflicting claims of energy savings currently being made in the marketplace.

Although the market does allocate resources, the question is how efficiently and how fast. In California, with warm summers, and in other states, with cold winters, it is not uncommon to hear of monthly cooling and heating bills over $400. These costs could be cut by one-third to one-half with appropriate insulation, weatherstripping and other conservation measures. RCS information and services can accelerate what the market will eventually accomplish, thus compensating for any lag in market adjustments.

In California, RCS is linked to several state incentives which improve and strengthen the RCS program. A state tax credit requires that an RCS audit be performed before many of the measures qualify. This ensures that the State tax credit subsidizes only cost-effective conservation improvements. Utility low-interest financing and solar demonstration programs also require an audit for certain measures, or require use of the RCS contractor list in order to guarantee a minimum level of consumer protection.

The elimination of RCS would weaken these important state programs. Incorporating this change into energy block grant legislation obscures the significance of the federal change in policy just as block grants obscure the impact of federal budget cuts.

Sincerely,

RUSSELL L. SCHWEICKART
Chairman

OCT 30 1981

STATE OF NEW YORK
DEPARTMENT OF STATE
ALBANY, N. Y. 12231

BASIL A. PATERSON
SECRETARY OF STATE

October 26, 1981

Senator James McClure
Chairman of the Energy Committee
Dirksen Senate Office Building
Room 5229
Washington, D. C. 20510

Dear Senator McClure:

Some time ago we wrote to advise of commendable progress in the State Weatherization program. In spite of a long-standing dispute regarding fiscal reports (which was resolved), we have continued to produce at the top level nationally and have now completed 47 thousand units including 15 thousand units in multiple dwellings and the only urban demonstration in the country.

It is critical to maintain the level of funding for weatherization which is vital to the health and comfort of thousands of poor families who have no alternative for shelter they can afford. In our state, we have just received a list of 4,000 senior citizens who are spending 40% or more of their income for energy costs. We are forwarding these addresses to the subgrantees of their areas to direct priority attention to weatherizing these homes immediately to reduce fuel costs. We are also advocating a set-aside of Low Income Home Assistance funds for weatherization in accordance with the option provided by the Congress in the new block grant bill.

Finally, we are concerned with reports that some legislators are proposing a conservation block grant program (S1544) at greatly reduced funding with a requirement for local matching funds. This will force governors to make some impossible choices in cutting back service to poor families or to schools and hospitals run by scarce public funds.

At a time when the Department of Energy does not even list conservation as a priority service, we urge you to continue full support for the present categorical grant weatherization program to insure continuity to subgrantees in all 62 counties and to give New York time to explore appropriate measures to expand this important and successful service. We have not only reduced fuel costs by at least one-third, we have successfully trained hundreds of technicians and provided thousands of jobs. Weatherization also provides an invaluable tool to reduce abandonment and stimulate neighborhood revitalization and return property to tax rolls. A special report on several New York neighborhoods, revealing dramatic improvement, will soon be completed for your review.

My Deputy, Eugenia Flatow, will be calling your office to brief your staff on these specifics. It is important that New York's progress be recognized and that the weatherization funding be maintained or improved.

Many thanks for your continued support.

Sincerely,

Basil A. Paterson

Basil A. Paterson

TESTIMONY OF
William W. Scranton III, Lieutenant Governor
Commonwealth of Pennsylvania
and
Chairman of the Governor's Energy Council
before
Sub-committee on Energy Conservation and Supply
Committee on Energy and Natural Resources
U.S. Senate
concerning S. 1544
October 16, 1981

INTRODUCTION

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I COMMEND YOU FOR YOUR CONSIDERATION OF SENATE BILL 1544 WHICH ESTABLISHES A BLOCK GRANT PROPOSAL FOR FUNDING STATE ENERGY CONSERVATION PROGRAMS.

AS YOU KNOW, PASSAGE OF THE ENERGY POLICY AND CONSERVATION ACT (EPCA) IN 1975 WAS A MAJOR IMPETUS TO THE ESTABLISHMENT AND DEVELOPMENT OF STATE ENERGY OFFICES. WITHOUT THE PASSAGE OF THIS AND SUBSEQUENT ACTS, IT IS DOUBTFUL THAT SIGNIFICANT STATE ENERGY CONSERVATION EFFORTS WOULD HAVE OCCURRED. THESE STATE PROGRAMS HAVE:

1. WEATHERIZED A SIGNIFICANT AMOUNT OF HOMES OCCUPIED BY THOSE ON FIXED AND LOW INCOMES UNDER THE DEPARTMENT OF ENERGY WEATHERIZATION PROGRAM;
2. PROVIDED VALUABLE ENERGY-SAVING INFORMATION TO INDIVIDUALS AND BUSINESSES THROUGH THE ENERGY EXTENSION SERVICE PROGRAM;

3. MATCHED INSTITUTIONAL SPENDING FOR EFFICIENCY IMPROVEMENTS AND CONVERSIONS UNDER THE DEPARTMENT OF ENERGY INSTITUTIONAL CONSERVATION PROGRAM; AND
4. PROVIDED THE INFRA-STRUCTURE FOR THE DEVELOPMENT OF STATE PROGRAMS OF POLICY DEVELOPMENT AND ENERGY SUPPLY ENHANCEMENT.

PENNSYLVANIA'S ENERGY ACTIVITIES

QUESTIONS WERE RAISED AT YOUR PRIOR HEARING CONCERNING THE ENERGY ACTIVITIES OF STATES, PARTICULARLY USES MADE OF FEDERAL FUNDS. MY PRIMARY REASON FOR COMING TODAY IS TO SHARE WITH YOU WHAT WE, IN PENNSYLVANIA, HAVE ACCOMPLISHED. ALSO I HAVE COME TO SHOW YOU THAT THE APPROACH IN DEVELOPING AND ADMINISTERING STATE ENERGY CONSERVATION PROGRAMS IS CONSISTENT WITH OUR NATIONAL GOAL OF REDUCING DEPENDENCE ON FOREIGN OIL THROUGH FREE MARKET STRATEGIES.

ALTHOUGH WE HAVE ESTABLISHED PROGRAMS TO MEET EACH OF THE MANDATORY REQUIREMENTS OF THE ENERGY POLICY AND CONSERVATION ACT (EPCA), WE HAVE ALSO CREATED TEN HIGHLY EFFECTIVE REGIONAL ENERGY CENTERS. THE BASIC FUNDING OF THESE PROGRAMS COMES FROM THE ENERGY EXTENSION SERVICE PROGRAM (EES). THE CENTERS PROVIDE INFORMATION AND ASSISTANCE TO AGRICULTURE INTERESTS, SMALL BUSINESSES, LOCAL GOVERNMENTS, AND APARTMENT OWNER/DWELLERS. IN ADDITION, THESE CENTERS PROVIDE A REGIONAL FOCAL POINT FOR PUBLIC INFORMATION PROGRAMS DEVELOPED UNDER THE EPCA AND ENERGY CONSERVATION AND PRODUCTION ACT (ECPA).

THE CENTERS ARE ESTABLISHED IN EACH OF TEN REGIONAL PLANNING AREAS, ARE FUNDED WITH FEDERAL CONSERVATION FUNDS, AND PROVIDE CONTACT WITH LOCAL GROUPS, INDIVIDUALS, AND THE MEDIA. THE CENTERS ARE MAINTAINED BY GROUPS WITH PREVIOUS EXPERIENCE IN DEVELOPING PUBLIC INFORMATION AND TECHNICAL ASSISTANCE PROGRAMS, PARTICULARLY IN ENERGY. THEY INCLUDE REGIONAL PLANNING COMMISSIONS, CHAMBERS OF COMMERCE, A STATE COLLEGE, AND PUBLIC INTEREST GROUPS.

SINCE START-UP, THESE CENTERS HAVE SPONSORED NUMEROUS CONSERVATION WORKSHOPS DEVELOPED BY OUR ENERGY OFFICE AND HAVE MADE SITE VISITS TO SMALL BUSINESSES TO SHOW THEM HOW TO USE ENERGY EFFICIENTLY. THESE CENTERS HAVE PROVIDED A VITAL LINK FROM STATE TO LOCAL GOVERNMENTS.

ANOTHER FEDERAL PROGRAM ADMINISTERED BY THE STATE IS THE INSTITUTIONAL CONSERVATION PROGRAM. THIS PROGRAM HAS, SINCE 1980, PROVIDED $19.2 MILLION IN MATCHING FUNDS TO SCHOOLS, HOSPITALS, PUBLIC CARE INSTITUTIONS AND LOCAL GOVERNMENTS FOR ENERGY ANALYSES, AND INSTALLATION OF ENERGY SAVING MEASURES.

WE PLAN TO SUPPLEMENT THE FINE WORK OF THIS PROGRAM BY AUTHORIZING OUR PUBLIC SCHOOL BUILDING AUTHORITY TO PROVIDE LOW INTEREST LOANS FOR SCHOOLS WHICH QUALIFIED BUT WHICH RECEIVED NO FUNDING UNDER THE ICP PROGRAM BECAUSE OF ITS COMPETITIVENESS.

PENNSYLVANIA'S FIRST STATEWIDE BUILDING GUIDELINES WERE ADOPTED IN RESPONSE TO THE EPCA GUIDELINES. UNDER THIS LAW, BUILDERS AND ARCHITECTS MUST WARRANT TO THE PURCHASERS OF THEIR BUILDING THAT THEY MEET A MINIMUM LEVEL OF ENERGY PERFORMANCE. THERE IS NO MANDATORY INSPECTION OF BUILDINGS BY A STATE AGENCY.

PENNSYLVANIA WAS AN ORIGINAL PILOT STATE FOR THE LOW INCOME WEATHERIZATION PROGRAM. SINCE ITS INCEPTION IT HAS MADE ENERGY EFFICIENCY IMPROVEMENTS TO 80,000 DWELLINGS OCCUPIED BY THOSE ON LOW AND FIXED INCOMES. WE FEEL THAT THIS PROGRAM HAS BEEN SO SUCCESSFUL THAT WE ARE ARE GOING TO EXERCISE OUR OPTION UNDER SECTION 2605 OF THE LOW INCOME ENERGY ASSISTANCE ACT OF 1981 ADMINISTERED BY THE DEPARTMENT OF HEALTH AND HUMAN SERVICES TO SUPPLEMENT THE WEATHERIZATION PROGRAM WITH AN ADDITIONAL 11 TO 17 MILLION DOLLARS. THIS WILL ENABLE PENNSYLVANIA TO INSURE LONG TERM ENERGY SAVING BENEFITS FOR LOW INCOME HOUSEHOLDS AND AT THE SAME TIME PROTECT THEM FROM SHORT TERM ENERGY PRICE INCREASES. WE HAVE ALSO EXPANDED THE SCOPE OF OUR HOUSING FINANCE AGENCY TO INCLUDE LOAN AUTHORITY OF 21 MILLION DOLLARS FOR ENERGY IMPROVEMENTS IN HOMES.

ALTHOUGH THESE ARE EXAMPLES OF THE DIRECT BENEFITS OF FEDERAL GRANT PROGRAMS, THERE ARE TANGIBLE INDIRECT EFFECTS. AS I STATED EARLIER, FEDERAL GRANT PROGRAMS PROVIDED THE STATES WITH THE MEANS TO BEGIN ENERGY PROGRAM DEVELOPMENT. IN PENNSYLVANIA, WE HAVE COMPLETED A STATE ENERGY POLICY. THIS POLICY CONTAINS RECOMMENDATIONS FOR INCREASING PENNSYLVANIA ENERGY SUPPLY AND EFFICIENT USE OF AVAILABLE SOURCES. FOR THE MOST PART, OUR POLICY COMPLEMENTS EFFORTS BY THE REAGAN ADMINISTRATION. THE POLICY DOCUMENT HAS BEEN REVIEWED BY JAMES U. DEFRANCIS, DEPUTY ASSISTANT SECRETARY FOR EXTERNAL AFFAIRS, DEPARTMENT OF ENERGY. MR. DEFRANCIS STATED THAT THE POLICY IS "HIGHLY COMPATIBLE WITH THE NEW NATIONAL ENERGY PLAN" AND CONSISTENT WITH THE NATIONAL ENERGY PRIORITIES. I HAVE BROUGHT WITH ME COPIES OF THIS POLICY.

ADVANTAGES OF BLOCK GRANT LEGISLATION

ALTHOUGH WE FEEL WE HAVE ACCOMPLISHED A GREAT DEAL IN PENNSYLVANIA AND GIVE A LION'S SHARE OF THE CREDIT TO FEDERAL CONSERVATION FUNDS, WE FEEL THAT BLOCK GRANT LEGISLATION HAS DISTINCT ADVANTAGES OVER CATEGORICAL GRANTS.

THE ADMINISTRATION OF THE CURRENT PROGRAMS HAS BECOME EXTREMELY COMPLEX. PLAN APPROVAL FROM THE DEPARTMENT OF ENERGY AND ULTIMATE FUNDING ASSISTANCE IS SUBJECT TO THE

REVIEW OF SEPARATE APPLICATIONS. EACH APPLICATION AND PLAN IS GOVERNED BY LENGTHY AND COMPLICATED RULES AND REGULATIONS.

ALL STATES ARE MANDATED TO ADMINISTER THE SAME CONSERVATION PROGRAMS. SOME OF THE MANDATORY PROGRAMS REQUIRED UNDER THE ENERGY POLICY AND CONSERVATION ACT (EPCA) AND THE ENERGY CONSERVATION PRODUCTION ACT (ECPA) HAVE QUESTIONABLE COST AND ENERGY SAVING BENEFITS. GREATER ENERGY SAVINGS COULD BE ACHIEVED WITH OTHER PROGRAMS THAT STATES COULD TAILOR TO THEIR NEEDS.

THE STATES HAVE BEEN DENIED FUNDING FOR SOME MANDATORY PROGRAMS. THE EMERGENCY ENERGY CONSERVATION ACT (EECA), FOR EXAMPLE, REQUIRED STATES TO DEVELOP SPECIFIC ENERGY EMERGENCY PLANS HOWEVER, FUNDING FOR DEVELOPMENT CAN NOT BE INCLUDED IN FEDERAL ENERGY CONSERVATION PROGRAM FUND REQUESTS.

THE CATEGORICAL NATURE OF THE FUNDING PROHIBITS COMMINGLING OR TRANSFERRING OF FUNDS BETWEEN PROGRAMS. THIS INHIBITS THE STATES ABILITY TO BETTER DEVELOP THOSE PROGRAMS OFFERING THE GREATEST BENEFITS. IT PREVENTS THE STATE FROM IMPLEMENTING MANDATORY PROGRAMS WHICH DOE WISHES THE STATES TO UNDERTAKE BUT WHICH ARE NOT ELIGIBLE FOR FUNDING. IT MAY ALSO REQUIRE STATES TO SPEND ADDITIONAL FEDERAL MONEY ON PROGRAMS WHICH THEY HAVE ALREADY IMPLEMENTED.

BLOCK GRANT LEGISLATION CAN ADDRESS MANY OF THESE SHORTCOMINGS BY PROVIDING A FLEXIBLE FUNDING STREAM IN WHICH STATES MAY DEVELOP EFFECTIVE CONSERVATION PROGRAMS. WE FEEL THAT LEGISLATION SHOULD INCLUDE A REQUIREMENT THAT STATES PROVIDE SOME PERCENTAGE OF THE FUNDS THROUGH MATCHES. THIS IS IMPORTANT AS AN INDICATOR OF A STATE'S COMMITTMENT TO PARTNERSHIP WITH THE FEDERAL GOVERNMENT. WE ALSO FEEL THAT OUR EXPERIENCE IN DEVELOPING ENERGY POLICY SHOULD BE USED AS AN EXAMPLE AND PROVISION BE INCLUDED TO ALLOW STATES TO UNDERTAKE POLICY ANALYSIS ON BOTH ENERGY CONSERVATION AND SUPPLY ENHANCEMENT.

A BLOCK GRANT FOR ENERGY CONSERVATION PROGRAMS WILL ALLOW THE STATES TO DIRECT ITS FUNDS TO THE MOST COST-EFFECTIVE MEASURES. IT WILL MAXIMIZE THE VALUE OF THE REDUCED FUNDS THAT MAY BE AVAILABLE DURING THIS PERIOD OF FISCAL RESTRAINT. IT WILL ELIMINATE THE REGULATORY AND ADMINISTRATIVE BURDENS PLACED ON STATE GOVERNMENTS. IT WILL REDUCE THE INVOLVEMENT AND ADMINISTRATIVE OVERSIGHT OF THE DEPARTMENT OF ENERGY.

SENATE BILL 1544

THE SENATE BILL BEFORE YOU TODAY IS A MAJOR STEP IN ASSURING THAT THE NEEDS OF OUR LOW-INCOME INDIVIDUALS ARE ADDRESSED. IT PROVIDES THE NECESSARY FLEXIBILITY TO THE STATES TO DESIGN THEIR OWN PROGRAMS TO ACHIEVE GREATER ENERGY SAVINGS.

ALTHOUGH WE SUPPORT THE CONCEPT OF STATE MATCHES FOR BLOCK GRANT FUNDS WE ARE UNCERTAIN MOST STATES WOULD HAVE THE FISCAL AUTHORITY TO MEET THE 30% REQUIREMENT PRESENTLY CONTAINED IN THE BILL. SINCE THIS BILL MAY PASS IN THE MIDDLE OF AN ALREADY DETERMINED STATE FISCAL YEAR IN WHICH STATES HAVE ALREADY PASSED ENERGY BUDGETS, WE SUGGEST THE COMMITTEE CONSIDER AMENDING THAT PORTION WHICH REQUIRES A 30% MATCH AND MAKE IT SOME LOWER FRACTION.

IN ADDITION, WE ENCOURAGE THE COMMITTEE TO CLARIFY THE MATCH PROVISION SO THAT THE INSTITUTIONAL MATCH REQUIRED UNDER THE INSTITUTIONAL CONSERVATION PROGRAM IS CONSIDERED AS A MATCH FOR THE BLOCK GRANT PROGRAM. THIS MONEY FLOWS DIRECTLY TO THESE INSTITUTIONS AND IS RIGHTLY MATCHED BY THEM.

AS EVIDENCED BY MUCH OF THE TESTIMONY BEFORE THIS COMMITTEE, THE CONSERVATION PROGRAMS ARE STRONG AND EFFECTIVE. AND, WHILE IT IS CLEAR THAT THE MAJOR THRUST OF OUR EFFORTS SHOULD BE TO STREAMLINE THE PROGRAMS, COMPLETE REPEAL OF EXISTING LEGISLATION IS NOT NECESSARY. IT IS NECESSARY TO REVISE THE EXISTING MYRIAD OF REGULATIONS AND REPLACE THEM WITH MORE BROAD AND FLEXIBLE INTERPRETATIONS. THE ACTIVITIES AUTHORIZED UNDER SECTION 5 OF S. 1544 COULD REPLACE THOSE MANDATORY REQUIREMENTS OF SECTION 362 OF THE ENERGY POLICY AND CONSERVATION ACT. THE EFFECT OF CHANGES MADE TO THE EXISTING LAWS SHOULD BE TO ALLOW THE STATES TO

SUBMIT A SINGLE GRANT APPLICATION AND PROVIDE STATES WITH THE NECESSARY AUTHORITY TO MOVE FUNDS FLEXIBLY AMONG THE EXISTING CONSERVATION PROGRAMS.

THE COMMITTEE SHOULD ALSO CONSIDER A FORMULA FOR ALLOCATING FUNDS TO THE STATES TO MORE CLOSELY REFLECT THE ACTUAL NEED TO PROVIDE ENERGY CONSERVATION SERVICES. BLOCK GRANT LEGISLATION SHOULD BE DESIGNED TO ENABLE THE STATES TO EFFECTIVELY RESPOND TO THE ESSENTIAL HUMAN SERVICES OF LOW-INCOME CITIZENS. ACCORDINGLY, WE SUGGEST THAT THE FUNDING FORMULA UNDER SECTION 6 PROVIDE A PERCENTAGE OF THE FUNDS TO THE STATES BASED ON THE RELATIVE NUMBER OF LOW-INCOME HOUSEHOLDS IN EACH STATE AND THE AVAILABILITY OF FUEL OR OTHER ENERGY USED BY THOSE HOUSEHOLDS. A SMALLER PERCENTAGE TO BE MADE AVAILABLE TAKING INTO ACCOUNT POPULATION AND CLIMATE INFORMATION AND ANY REMAINING PERCENTAGES DISTRIBUTED EQUALLY AMONG THE STATES.

FINALLY, WE WOULD SUGGEST THE COMMITTEE RECONSIDER ITS STIPULATION THAT A MAXIMUM OF 10% OF AVAILABLE FUNDS BE USED FOR ADMINISTRATIVE PURPOSES. RETENTION OF FUNDS BY THE STATE GOVERNMENT DOES NOT MEAN MONEY WILL NOT GO TO IMPLEMENTING THE PROGRAMS. RATHER MANY STATES MAY WISH TO DO MORE WORK IN-HOUSE RATHER THAN CONTRACTING OUT FOR SERVICES.

I HOPE THESE COMMENTS ARE USEFUL TO YOU IN DETERMINING THE BEST AND MOST EFFECTIVE FORM OF BLOCK GRANT LEGISLATION.

WE THANK THE COMMITTEE FOR THEIR CONSIDERATION OF THIS BILL AND VOLUNTEER OUR SERVICES TO ASSIST THE COMMITTEE.

The City of New York

WASHINGTON OFFICE

1725 Eye Street, N.W.
Washington, D. C. 20006

202-223-6694

October 23, 1981

Mr. Richard Grundy
Senate Energy and Natural
  Resources Committee
U.S. Senate
2110 Dirksen Senate Office
  Building
Washington, D.C. 20510

Dear Mr. Grundy:

I am pleased to submit the enclosed comments, by Robert Herzog, Director of the New York City Energy Office, for inclusion in the hearing record on S. 1544. The City has a strong interest in the development of efficient and effective energy conservation programs and their application in local settings.

Thank you for your consideration.

Sincerely yours,

Eve Lubalin

Eve Lubalin
Legislative Representative
City of New York

SAVE WATER

THE CITY OF NEW YORK
OFFICE OF THE MAYOR

ROBERT M. HERZOG
DIRECTOR
NEW YORK CITY ENERGY OFFICE

OFFICE OF ECONOMIC DEVELOPMENT
17 JOHN STREET
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TESTIMONY OF

MR. ROBERT M. HERZOG

DIRECTOR, NEW YORK CITY ENERGY OFFICE

on

ENERGY BLOCK GRANTS

S. 1544

October 23, 1981

The City of New York is pleased to be able to present its comments on Senate Bill 1544, "The State and Local Block Grant Act of 1981." As both a large, concentrated user of energy and a city which is actively involved in the development of local energy policies and programs, the City feels that its suggestions can serve to strengthen the proposed legislation, insuring that cities throughout the country will be able to make a significant contribution in solving national energy problems.

S.1544 proposes to eliminate most of the existing categorical energy conservation programs at the federal level and, in their place, create a new $200 million annual energy block grant to be disbursed to the states. The states may then use this money for energy conservation and supply activities of their own design.

In theory, a block grant program of this type could help to eliminate an onerous layer of federal bureaucracy which often impedes the most cost-effective application of federal funds. Since energy conservation, and even supply, frequently depends on locally or regionally specific considerations, removing federal regulations which govern the use of funds could, in fact, produce a new generation of effective energy programs.

In practice, however, even state-run programs do not always utilize funds in the most efficient manner. This fact is particularly well known to cities. Urban centers, such as

New York City, have too often found themselves at the end of a long line of bureaucratic delays which can waste resources and not provide adequate flexibility in meeting their needs, leading to not meeting program objectives. These problems are avoidable.

The Weatherization Program clearly indicates the problems which local governments must face in dealing with their federal and state counterparts. Under this program, the Department of Energy provided each state with funds to pay for the weatherization of low income households. The state agency in charge of the program, in turn, distributed the money to localities for application towards weatherization. The state was mandated to retain 5% of the total funds for administrative overhead, while local governments were not permitted any additional funding to cover their administrative costs.

It is local governments, however, who are in the best position to implement the program, through their expertise and knowledge gained from working with local groups and conditions. Municipalities are also best able to leverage and coordinate additional resources, such as CETA or private sector financing. Not providing resources to cities to implement the program was a flaw from which it never recovered, and many homes which could be more comfortable and energy efficient are not because of this problem.

In this same program, New York City fell victim to delays and underspending at the state level. These delays cost the City $9 million in weatherization funds in one year alone, even though the City was prepared and able to put these funds to good use.

The Weatherization Program is one which has two important objectives. It provides benefits on the individual level by addressing the energy needs of those with the least resources to help themselves -- and who suffer most from rising energy costs -- our nation's poor people. By making their homes more energy efficient, it is possible to increase the personal comfort and well being of the poor while allowing them to devote a larger portion of their limited incomes to other, non-energy essential goods and services.

It also serves the national interest by improving energy productivity through increased efficiency, thus providing for a healthier national economy and increased security of energy supplies.

Yet it is a program which has too often proved impossible to use at the local level where the problems it is intended to address are most acute. What is needed is a program which is flexible enough to accommodate the diverse energy needs in all regions of the country and in all types of housing, from detached single family homes to large multi-family apartment buildings. No single set of standards or activities can accomplish this task. The diversity of our cities is one of the nation's great characteristics - it also makes it absolutely necessary that these cities be given flexibility in defining their particular needs and the best means of coping with them.

These problems with the Weatherization Program are indicative of similar problems with other categorical programs whose funds were administered at the state and federal levels, including the Energy Extension Service and the Institutions and Buildings Program. Experience has shown that because of their lack of attention to local needs and opportunities, these programs have not adequately addressed the energy problems of our cities. New York City feels that for any energy program to be successful, it must recognize the necessity for cities to play a key administrative and planning role.

Funding should begin at a useful level of government, not one entangled in bureaucratic delays. Large cities can be direct grantees and yet not impose an excessive administrative problem for the federal government since there are no more than 40 cities with a population of over 500,000 in the United States.

We need a greater allocation of funds to the entities most able to use them. Based on their extensive knowledge of local institutions, businesses and residents, cities are best equipped to develop energy programs that are feasible and realistic to implement at the local level. No state capital will plan at a level detailed enough to be useful in cities, nor will states focus resources sufficiently on a per capita or consumption basis. Yet at this time few cities receive direct federal energy assistance.

The City of New York supports the intent of S.1544, to permit greater flexibility in the development of energy programs by eliminating federal regulatory requirements. In its current form, however, S.1544 does not pay sufficient attention to the needs of cities and does not insure adequate local input into the development of statewide energy programs. In order to guarantee that S.1544 will truly be the State and Local Block Grant Act of 1981, the City feels that it is necessary to specify the role of local governments and to insure them adequate resources to carry out their energy programs.

First, the ultimate impacts of the Act would be strengthened if a portion of the funds it allocates was provided directly to cities. This step would eliminate a costly layer of state bureaucracy which has hampered the ability of cities to effectively utilize funding from the categorical programs now in existence. By providing cities with these financial resources directly, they can see to it that the money is used most efficiently in programs of their own design which accurately reflect local conditions and needs.

Second, S.1544 requires that non-federal matching funds be provides as a condition for receiving funding: 30 percent for 1982 and 50 percent in the subsequent two years. Many state and local governments are scrambling to adjust to federal budget cuts already in place, further straining their limited financial resources. Additional claims on these resources would necessitate increased state and local taxes, potentially offsetting any economic benefits which local energy programs could provide. The City, therefore, asks that this matching fund provision be eliminated, particularly if local governments are to play a meaningful and active role in program development.

Finally, care must be taken not to allow block grant legislation to simply provide a convenient mechanism to reduce, and then eliminate altogether, federal funding for valuable energy programs. As written, S.1544 provides for a net reduction in funding from the current budget appropriations to the program it is meant to replace of $136 million in 1982 alone. This reduction is untimely, circumvents the wishes of the Congress and damages the development and implementation of state and local energy programs. The City asks that S.1544 be revised to reflect a level of funding which is, at a minmum, equal to that specified by the Congress for the categorical programs.

The failure to develop effective city energy programs is not just an isolated series of failures at the local level; in aggregate it represents a threat to the national well being. S.1544 should recognize the opportunity to enlist local governments in implementing state and national energy programs by providing the process and resources for their participation.

COMMENTS
of the
AMERICAN CONSULTING ENGINEERS COUNCIL
to
U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
on
S.1544, THE STATE AND LOCAL ENERGY BLOCK GRANT ACT OF 1981

October 16, 1981

ACEC TESTIMONY ON ENERGY BLOCK GRANTS

The American Consulting Engineers Council is a national association consisting of over 3700 independent engineering firms. Member companies range in size from one man operations to over 4,000 professional/technical employees. These firms are responsible for the planning and design of such huge projects as Washington's Metro and the mechanical systems for the Sears Tower. They are equally at home performing energy audits for mom and pop laundries or single family dwellings. In short, consulting engineers represent a valuable private sector resource that is deeply involved in energy conservation.

Specifically, many of these firms are concerned by certain provisions of S.1544 the "State and Local Energy Block Grant Act of 1981." Our members participate in or compete with many of the programs mentioned in this bill.

We support S.1544 to the extent that it repeals many of the federal energy conservation programs, including a number our Council has opposed from their conception: like the Energy Extension Service, the Residential Conservation Service and the Commercial and Apartment Conservation Service. Our opposition was based not only on the fact that they were ill conceived, but that they duplicated and overlapped existing services easily available from private enterprise. They presented a form of government competition.

Our Council has received numerous reports from our members that they were, or are, being preempted by the activities of the various programs mentioned in S.1544.

We believe that many of these programs were poorly conceived. Some in fact seemed little more than desperate attempts to be "doing something" about the energy crisis. Somehow the federal government felt it incumbent upon itself to fill what it perceived as a void in this area. That void being the perceived need for a mechanism to institute energy conservation. As it turned out, and as statistics reveal today, the American people and business are not apathetic toward energy conservation and many have personally taken initiatives to fulfill their responsibility toward alleviating our energy dependence. Congress should recognize this and act to end these mandatory, burdensome and expensive programs.

Consulting engineers play only a small role in the overall energy picture but nonetheless a significant one. We would like to briefly explain that role to give more justification and possibly weight to our opinions on this bill.

Many programs that S.1544 will repeal involved use of energy auditors. Consulting engineers are energy auditors but we are more than that. Our members perform audits ranging from studies and evaluations of small buildings to industrial complexes. However, we go even further by supplying the technical design and specification changes that audits indicate are necessary. In some S.1544 programs, members are employed to perform needed services, in others they develop their own in-house staffs. We should mention parenthetically that many of these programs have "private enterprise language" in the authorizing law that expresses the government's confidence and support in the private sector and their desire to minimize the conflict between the two. We have never know this to be a barrier to the increased growth and autonomy of these federal programs once they get into full swing.

The nature of consulting engineering involves us inextricably with federal energy programs whether it is working through them or in competition with them. The need for energy conservation is evident whether or not these program exist and consulting engineers will provide energy conservation services whether or not these programs exist. And we believe the American people and business will continue to conserve energy whether or not these programs exist.

Congress is rightfully concerned over who will fill the void created by the elimination of federal programs. We contend it is being filled right now by us along with the architects, mechanical and electrical contractors, plumbing, heating and cooling, air conditioning contractors and other entrepreneurs in this rapidly expanding area. We are confident that if you ask trade associations representing these other interests, they will tell you their members are quite active in the energy conservation area. Also, new and innovative methods of financing are available to energy users wishing to conserve. Not of minor significance is the fact that the energy conservation market is proving to be a promising one for small businesses.

One federal program that does have our support because of its unique nature is the schools and hospitals grants program. These non-profit institutions need a small amount of federal aid to make up the difference in funds that profit-making organizations have to carry out their work. We would suggest, however, that the priority for funds in this program be changed to reflect the most cost efficient use of the money. As the program now stands money goes for one of three uses--energy audits, technical assistance, or purchase and installation of energy conservation measures. Emphasis in the past has been on the third. The consulting engineers contend more emphasis should be on technical assistance where it makes more sense to specify the correct size furnace or fan for $20, than to purchase a new one the wrong size at $20,000.

Concerning the specific provisions of the bill, in order to make more efficient use of the limited amount of money that may be available, we would urge the deletion of Section 5,(a)(4) and (5).

This is money that goes for the specific services mentioned earlier that can adequately be supplied by the private sector.

Despite skepticism of the utility of "private enterprise language" referred to earlier, such a provision is advisable in this legislation. However, it should be worded in stronger language than in the past. We suggest that states be encouraged to seek out existing private sector services and be required to document absence of same before they they are permitted to expand their own staffs with federal funds.

In sum, the members of the American Consulting Engineers Council support enactment of S.1544 with the minor changes mentioned above. Further, we support any other legislation that would repeal these existing federal programs. The need for the federal government's presence in these areas is no longer necessary, except in limited cases. The advantages will be not only to those private sector firms that will benefit from less government competition but to businesses, utilities and most of all the taxpayer who will not have to comply with more regulation and support these programs with their hard-earned tax dollars.

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